BUSINESS HORIZONS

SUMMER 1960

VOL. 3. NO

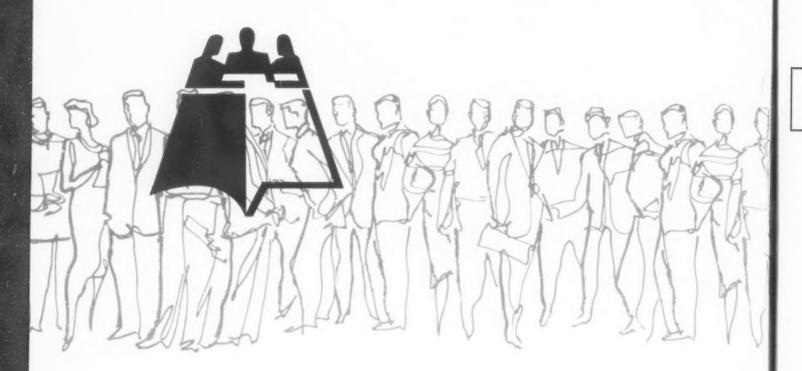
Contents

- THE NEED FOR A NEW ECONOMIC UNORTHODOXY

 Neil W. Chamberlain
- HOW BEHAVIORAL SCIENTISTS CAN HELP BUSINESS

 Delbert C. Miller
- THE BUSINESS LEADER'S ROLE IN POLITICS
 Willard V. Merrihue
- BUSINESS SHOULD STAY OUT OF POLITICS
 Theodore Levitt
- CREEPING INFLATION: CAUSES AND CONSEQUENCES
 Charles L. Schultze
- A PRACTICAL APPROACH TO RISK MANAGEMENT Russell B. Gallagher
- BUSINESS IMPLICATIONS OF POPULATION GROWTH Philip M. Hauser
- THE SMALL BUSINESS CORPORATION—PROCEED WITH CAUTION
 - Robert R. Milroy
 - CASE STUDY: A SMALL COMPANY WANTS TO GROW ONE SIZE LARGER
 - J. Hugh Funk and Fremont A. Shull, Jr.

A COMPANY IS PEOPLE . . .



Mead Johnson & Company recognizes this principle, as well as its corollary: The better the people, the better the Company. People, at Mead Johnson, want to improve themselves. For this reason the Mead Johnson Institute was established as an integral part of the well-rounded program through which development opportunities, consistent with the requirements of the business and the needs of individuals, are offered to all employees of Mead Johnson & Company.

The management and professional requirements of the Company are far reaching and varied. Development is a long range undertaking with cumulative benefits to the individual and to the Company; the development process for each individual extends over the whole of his working life. It is the aim of Mead Johnson & Company that each of its people shall have a soundly conceived development program and the opportunity for participation in the professional services of the Mead Johnson Institute. Thus the full potential of each individual may be attained.



w. Adm.

- 21 THE NEED FOR A NEW ECONOMIC UNORTHODOXY / Neil W. Chamberlain
- 32 HOW BEHAVIORAL SCIENTISTS CAN HELP BUSINESS / Delbert C. Miller
- 38 THE BUSINESS LEADER'S ROLE IN POLITICS / Willard V. Merrihue
- 45 BUSINESS SHOULD STAY OUT OF POLITICS / Theodore Levitt
- 52 CASE STUDY: A SMALL COMPANY WANTS TO GROW ONE SIZE LARGER / J. Hugh Funk and Fremont A. Shull, Jr.

BUSINESS HORIZONS

SUMMER 1960 VOL. 3 NO. 2

- 65 CREEPING INFLATION: CAUSES AND CONSEQUENCES / Charles L. Schultze
- 78 A PRACTICAL APPROACH TO RISK MANAGEMENT / Russell B. Gallagher
- 87 BUSINESS IMPLICATIONS OF POPULATION GROWTH / Philip M. Hauser
- 97 THE SMALL BUSINESS CORPORATION—PROCEED WITH CAUTION / Robert R. Milroy
 - 4 PROFILES OF THE FUTURE—IT'S GOOD TO BE IN A BUSINESS SCHOOL / Maurice W. Lee
 - 12 READER AND EDITOR

FEATURES

- 110 TECHNOLOGICAL HORIZONS—LINEAR PROGRAMMING AND MANAGEMENT / R. Stansbury Stockton
- 114 BOOK NOTES

Business Horizons is published quarterly by the School of Business, Bureau of Business Research, Indiana University. Copyright, 1960 by the Foundation for Economic and Business Studies, Indiana University, Bloomington, Indiana. Business Horizons is not responsible for the opinions expressed by its contributors.

Entered as second-class matter at Bloomington, Indiana. Additional office of entry at St. Louis, Missouri. RATES: \$2.00 per copy, \$6.50 one year, \$12.00 three years. Make checks payable to Business Horizons. Reprints of articles are available. Information and prices upon request. Address all correspondence, including advertising materials and inquiries, to Business Horizons, School of Business, Indiana University, Bloomington, Indiana. Telephone EDison 6-6811, extension 789.

NEIL W. CHAMBERLAIN

A Professor of Economics at Yale University,
Mr. Chamberlain is a former director of the
program in economic development and administration of the Ford Foundation. He is the author
of A General Theory of Economic Process; Labor;
The Impact of Strikes; and other books.

The Need for a New Economic Unorthodoxy

Has the age of affluence resulted in an economic orthodoxy so deeply ingrained that any dissent is disrespectable? Where in our time are the economic heresies that compete with conventional thought and give impetus to progress? A resurgence of imagination and inventiveness is needed if we are to have fresh perceptions and a strong response to pressures already upon us.

DELBERT C. MILLER

Mr. Miller is Professor of Sociology at Indiana University. Industrial sociology is his special interest, and he has written many articles and several books in this field. His most recent book Industry, Labor and Community is scheduled for publication this month.

How Behavioral Scientists Can Help Business

The behavioral sciences, with their concern for psychological and social factors that influence behavior, are establishing an important role in the business world. To know what behavioral scientists can do for management, we must see how they define their task, how they do their job, and what principles guide them. Equally significant is their future contribution.

about the

AUTHOR

ARTICLE

WILLARD V. MERRIHUE

As Manager of Community and Business Relations for General Electric, Mr. Merrihue speaks from first-hand experience in company-community relations. He is author of the book Managing by Communication published early this year.

The Business Leader's Role in Politics

The time has come for businessmen to participate actively in politics. Much of the doubt and fear surrounding this activity is based on dubious assumptions or simple lack of understanding. The whole art of self-government will be greatly enriched by the infusion of American business leadership into the political process. 38

THEODORE LEVITT

Mr. Levitt is a Lecturer on Business Administration at the Harvard Business School. He has written numerous articles on economics, business, and political subjects, and is currently writing a book on the social role of business.

Business Should Stay Out of Politics

The best course for business is to stay out of politics. It will play its legitimate role in our society by concentrating on sound business practice and better customer service. The more effort it wastes in such distractions as politics, the less effectively it will deliver the goods. And should that happen, business will be in real trouble.

45

CHARLES L. SCHULTZE

A former staff member of the President's Council of Economic Advisors, Mr. Schultze is
Associate Professor of Economics at Indiana University. He wrote the paper on Recent Inflation in the United States for the Joint Economic Committee of the Congress and is a Vice-President of the Midwest Economics Association.

Creeping Inflation: Causes and Consequences

Fear of inflation dominates much of our domestic economic policy. But careful analysis of recent inflationary processes indicates that neither of the traditional theories—"cost-push" or "demand-pull"—offers a satisfactory explanation. A new approach is needed; perhaps we should look for inflationary pressures in particular segments of the economy rather than put all the burden on over-all cost or demand factors. 65

RUSSELL B. GALLAGHER

A lifelong interest in insurance and an active career in insurance management led Mr. Gallagher to his present position as Manager of Insurance and Real Estate for the Philco Corporation.

He is also interested in insurance education and has lectured at universities and contributed to business literature.

A Practical Approach to Risk Management

Anticipating and guarding against risk is among the oldest of management problems, but it is with us just as much today as it ever was. As with all other business operations, the modern risk concept has become more complex; but there are some interesting new tools to apply. These are now refined enough to enable us to discuss "management" of risks. 78

PHILIP M. HAUSER

Mr. Hauser is Chairman of the Department of Sociology and Director of the Population Center at the University of Chicago. He is also Chairman of the Technical Advisory Committee for the 1960 census, and has served as a consultant to the United Nations and the Department of Commerce.

Business Implications of Population Growth

In forty years, according to current United Nations projections, our planet must support over six billion people—more than twice the present population. For American businessmen—and everyone else with a stake in the future—few issues are more important than the make-up and magnitude of future world population; today this is true in the short run as well as in the longer view.

87

ROBERT R. MILROY

The Small Business Corporation—Proceed With Caution

Professor Milroy is Professor of Accounting in the Indiana University School of Business, a Certified Public Accountant, and a lawyer. The Small Business Tax Option Corporation was supposed to equalize the tax effects of different forms of business organization. The author takes the position that this new and unique form of business organization has decided tax advantages in particular situations, but should be watched carefully for possible side effects.

97

I. HUGH FUNK AND FREMONT A. SHULL, IR.

Mr. Funk is a Vice-President of the Indiana National Bank of Indianapolis. Mr. Shull is Assistant Professor of Management in the Indiana University School of Business.

A Small Company Wants to Grow One Size Larger

Growth is a magic word for many small companies. Here is one with growth objectives but with some real problems standing in the way. The nature of the problem will have a familiar ring to many small-company managers. There are no indisputably right answers, and every reader can try his hand at diagnosing the case. 52

Advisory Board

ROBERT C. LIEBENOW DONALD B. WOODWARD HERMAN C. NOLEN JAMES E. PATRICK
J. IRWIN MILLER
ELI SHAPIRO

Development Council

BURTON D. LOKEN JACK T. TURNER BASIL L. WALTERS

IOHN D. LONG

NEAL GILLIATT
D. LYLE DIETERLE
WILLIAM J. GASKILL

Editorial Board

ARTHUR M. WEIMER, DEAN, ex officio
SCHUYLER F. OTTESON, ex officio
JOHN F. MEE, Chairman
CLARE W. BARKER
EDWARD E. EDWARDS
JEAN C. HALTERMAN
JOSEPH R. HARTLEY
CHARLES M. HEWITT
EDGAR G. WILLIAMS

Editorial Committee, Summer Issue:

John D. Long, Chairman, Edgar G. Williams, Joseph R. Hartley

SCHUYLER F. OTTESON, Editor

JACK R. WENTWORTH, Assistant Executive
Editor
BERT E. ELWERT, Assistant Research Editor
WANDA LEE SMITH, Assistant Editor
CELIA M. MILLWAND, Assistant Editor
RONALD W. STERKEL, Design Consultant
J. DOUGLAS SNIDER, Business Manager
L. VANN SEAWELL, Controller
ROBERT L. BRYSON, JR., Advertising Manager

Research Associate: Ronald P. Willett Research Assistants: Charles F. Bonser, Joseph J. Cramer, Jr., William W. Dallas, Martin M. Furth, Michael E. Gerwe, Richard J. Golbesky, Nancy M. Hill, Donald J. Muckerheide, Don G. Noone, Charles E. Skidmore, Reynold Van Til, David J. Warnimont, Nicholas Yengich

Staff Assistants: Janet Barone, Kay Fenn, Irene Horning, Beverly Ann Lampers, Ann Robinson, Anna Stone, Betty J. Otto

profiles of the future

Editor's Note: Those concerned with business and professional education for business have seen some significant developments in the past year. Publication of two of the most thorough studies ever done on business schools has increased awareness of both shortcomings and opportunities in education for business leadership. As part of the Carnegie Series in American Education, Professor Frank C. Pierson has supervised a study of university-college programs in business administration; Professor R. A. Gordon and Professor J. E. Howell have done a similar study entitled "Higher Education for Business" under the auspices of the Ford Foundation. The results have prompted re-evaluation of many of the philosophies and programs that have long guided education for business.

Now that enough time has passed for careful study, discussion, and appraisal, we present in the following comments the views of one of the nation's most distinguished educators. Mr. Lee is dean of a leading school of business and president of The American Association of Collegiate Schools of Business. We think that his opinions on education deserve the widest possible audience.

IT'S GOOD TO BE IN A BUSINESS SCHOOL

by Maurice W. Lee

Fa

I

FACULTY members in departments and schools of business administration are part of an evolution that threatens momentarily to become a revolution. One who has been away for any appreciable length of time and has only recently returned to his office in the school of business must be wondering, at least secretly, if the pace of developments is not rendering him obsolete. It might well be asked what is expected of the present-day faculty in a school of business.

THE SCHOOL TODAY

It is not easy to describe today's business school faculty member. To teach and do research in a modern school of business, the faculty member, it would seem, must have taken integral and differential calculus, have worked with modern algebra, know something of set theory and symbolic logic, be familiar with matrix algebra, and know something of computer programming and applications in the field of operations research. He must also have done a great deal of work in the field of social psychology, for he must know not only about the behavior of individuals, but must study them as members of groups and know about the motivation of

Mr. Lee is Dean, School of Business Administration, University of North Carolina.



What is the Bell System?

THE Bell System is wires and cables and laboratories and manufacturing plants and local operating companies and millions of telephones in every part of the country.

S

S.

e

1e

if-

ed

e-

lic

al-

of

p-

rave he

he beust

ips

of

Ad-

The Bell System is people . . . hundreds of thousands of employees and more than a million and a half men and women who have invested their savings in the business.

It is more than that. The Bell System is an idea.

It is an idea that starts with the policy of providing you with the best possible telephone service at the lowest possible price.

But desire is not enough. Bright dreams and high hopes need to be brought to earth and made to work.

You could have all the equipment and still not have the service you know today.

You could have all the separate parts of the Bell System and not have the benefits of all those parts fitted together in a nationwide whole. It's the time-proved combination of research, manufacturing and operations in one organization—with close teamwork between all three—that results in good service, low cost, and constant improvements in the scope and usefulness of your telephone.

No matter whether it is one of the many tasks of everyday operation—or the special skills needed to invent the Transistor or develop underseas telephone cables—the Bell System has the will and the way to get it done.

And a spirit of courtesy and service that has come to be a most important part of the Bell System idea.

BELL TELEPHONE SYSTEM



American Telephone & Telegraph Company - Bell Telephone Laboratories - Western Electric Company - New England Telephone & Telegraph Company - Southern New England Telephone Company - New York Telephone Company - New Jersey Bell Telephone Company - The Bell Telephone Company of Pennsylvania - Diamond State Telephone Company - The Chesapeake & Potomac Telephone Companies - Southern Bell Telephone & Telegraph Company - The Ohio Bell Telephone Company - Cincinnati & Suburban Telephone Company - Michigan Bell Telephone Company - Indiana Bell Telephone Company - Wisconsin Telephone Company - Illinois Bell Telephone Company - Northwestern Bell Telephone Company - Southwestern Bell Telephone Company - The Mountain States Telephone & Telegraph Company - The Pacific Telephone & Telegraph Company - Pacific Telephone - Northwest - Bell Telephone Company of Nevada

groups. He will need to have mastered the rudiments of sociology and have more than a passing acquaintance with the jargon and insights of cultural anthropology. And he must not acquire these things at the expense of a sound grounding in economics, for that is fundamental. We take it for granted that he will not only be acquainted with but expert in the tool areas of accounting and statistics. And then he must master at least one-and preferably most-of the functional fields of business: marketing, finance, and production.

There may be a few faculty members who are not competent in all these things. But I dare say there are almost none who are not hard at work trying to build competence in those fields where they feel most deficient. For this is a characteristic of modern business schools and their faculties: They are on the move. The modern collegiate school of business is a dynamic thing. It is also an exciting place.

If the school of business a generation ago was in isolation, standing apart from the rest of the campus, that was understandable in the evolution of such schools. Collegiate education for business is a comparative newcomer to the halls of ivy. If the earlier schools were inwardlooking, they had to be. When Joseph Wharton made possible the establishment of the first school of business, no one took much more than the broad view that education for business leadership was a worth-while thing. When Chicago's School of Business followed, then Harvard, and even the pioneering, post-World War I ventures at Indiana and North Carolina, business school programs were still in the experimental stage.

Gradually recognizable patterns began to emerge. Tool fields such as accounting were identified, and quasi-tool, quasienvironmental fields like law and economics became accepted in the foundations of business education. The functional fields of marketing, production, and finance became recognized. In the interwar period, schools of business were busy filling in the framework, giving content to these fields. Excesses were committed; proliferation and fragmentation were not unknown. If the schools of business were preoccupied with internal thoughts, with matters of immediate concern, this is not surprising. Settlers in virgin land have always been preoccupied with clearing the land, breaking the soil, and getting in the crops. They have not had much time for relating their endeavors to the culture and society they were in and were shaping. But if the last generation's schools of business were inward-looking, their descendants are not.

The modern school of business has developed a network of contacts with the rest of the university. At the University of North Carolina, courses offered in the School of Business Administration in the present semester are being taught by faculty members from the departments of philosophy, sociology, psychology, mathematics, theoretical statistics, and economics. Members of the faculty are taking additional formal training in both mathematics and statistics and are associated in research activities with faculty members from other departments of both their own and nearby universities. The point is that a great many schools of business all across the country-in addition to the University of North Carolina—are doing this.

The business school today is, or should be, a university center of intellectual ferment. For, with all their floundering, experimentation, and self-analysis, the business schools are beginning to find their place in the university community. And it is indeed a most interesting place.

H

of

and

90%

ope

of t

info

all s

syst

orde

repr

You

whe

copi

nece

or ge

you

-in

lette

you :

the 1

as sa

Be

There is a dreary caricature of the business school as a center of nonintellectual activity, as a sort of trade school uninterested in the on-going of the university or college as a whole. This is about as relevant as the Russian caricatures of capitalism. History has caught up with and passed by whatever elements of truth were ever present in these caricatures.

Today, the business school is in the main stream of the intellectual life of the university. It is neither uninterested in nor isolated from the rest of the university. Its very future is inextricably tied to the future of the whole university. I have always felt that a business school had little chance to become great if it was not a part of a great university.

CRITICISMS

The dissatisfactions that the Ford and Carnegie studies have expressed with respect to business education are not new discoveries. They are simply reports of what those who conducted the foundation studies learned when they talked with leading faculty and administrative officials who had known these things and had been working to improve them.

These criticisms can be described in great detail, but they are, in essence, that the graduates of many business school curricula have little analytical ability, too

How the Bruning Man Helps You

REMOVE THE CLERK WORK, IMPROVE THE **CLOCK WORK**

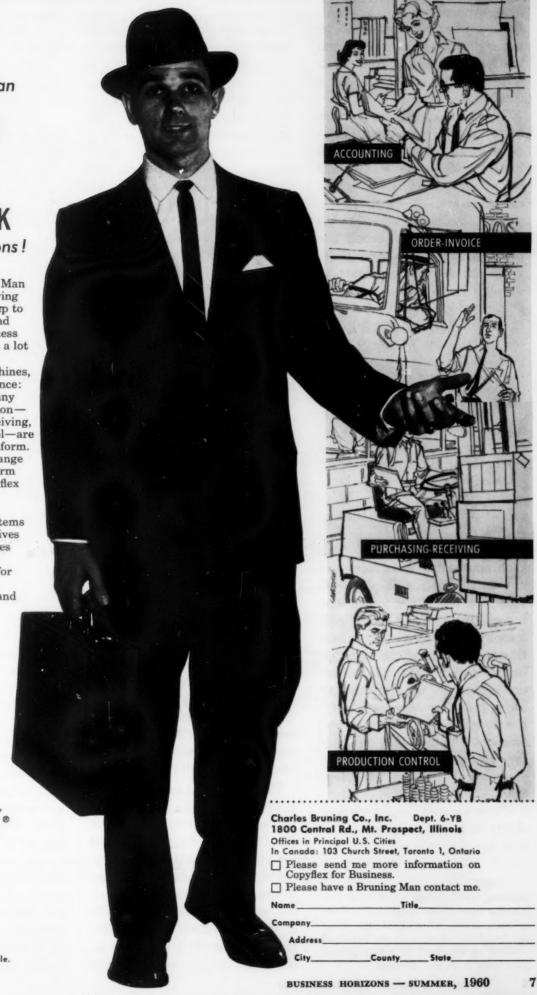
of Business Operations!

With the help of the Bruning Man and his modern Copyflex copying machines, you can eliminate up to 90% of the clerical retyping and rewriting work in major business operations. And that can save a lot of time and money.

With Copyflex copying machines, information is written only once: all subsequent documents in any systematized business operationorder-invoice, purchasing-receiving. accounting, production control-are reproduced from one original form. You can add, block out, or change information on the original form whenever desired, make Copyflex copies of the revised form as necessary.

Best of all for business systems or general copying, Copyflex gives you sharp black-on-white copies in seconds—for as little as a penny a copy for materials for letter size. The coupon brings you information on Copyflex and the help of the Bruning Man, paperwork expert as well

as salesman.



BRUNING Copyflex .



Desk Top Copyflex Model 120 Complete line of larger models available. limited a communication facility either verbally or in writing, and only an operational concept of the functional fields of business itself.

These weaknesses can be corrected only if improvements in areas outside the business school itself are forthcoming. Much of the present criticism of business education is really a more fundamental criticism of work that lies outside the business school. The business school can hardly develop in its own students or develop in its own courses the prescribed degree of analytical content if students coming into the business school have had no previous training appropriate to the development of such an approach.

Where the general college student is allowed to complete his prebusiness training with only a single course in mathematics that is essentially a repeat of highschool algebra, it is too much to expect that he will have learned the approaches of analytical thought. Nor do I suggest that such approaches can be learned only in the mathematics department, for this is not a fact. The humanities, and particularly philosophy, have much to offer along this line. So could the sciences, but science departments at most universities are not dedicated to the approaches subsumed under the heading "Liberal Arts and Sciences." Rather they are, for the most part, dedicated to the professional training of scientists.1

When we turn from analytical ability to facility in communication, the problem seems, if anything, even more acute and admittedly one of university-wide scope. Too large a proportion of our college graduates have too little facility in either oral or written communication. They are inadequate in the mechanics of communication—spelling, punctuation, and grammar—and only the rare graduate has any real sense of style. The business school graduate is probably little worse—if any worse—than the others.

Some Suggestions

Where does all this leave the business school? The answer may be approached through a series of questions. How often have deans, department chairmen, or faculty members in business administration taken the lead in trying to upgrade university-wide standards? How often have they worked to impose higher standards for promotion from the general college? Has it been suggested that students not be promoted from the general college until they have completed, for example, at least a year of collegelevel mathematics; or that apart from formal passage of English 1 and 2 they be required to pass a proficiency examination in English usage? Failing the attempt to raise these standards for the entire university, have they tried to set meaningful standards for admission to their own programs in business administration?

Criticisms that center around the business curriculum itself fall into certain identifiable patterns. It is contended, for example, that too many of the student's educational hours are taken up with business courses; and that business courses are descriptive rather than analytical; that they are technique-oriented; that their intellectual content is low. What may be done about these criticisms?

For one thing, of course, the business school can and should set limits on the number of hours of work that can be taken in business subjects. The American Association of Collegiate Schools of Business says that at least 40 per cent of the student's work must be taken inside and at least 40 per cent outside of business and economics. Clearly, each school has complete latitude to reduce the proportion of business courses required of the student. And clearly the business schools can go far to discourage fragmentation and excessive course specialization. But with respect to the business curriculum itself, the school is dependent in significant ways upon university-wide action. A business school is limited in improving the content of business school courses if students coming into the school are deficient in prebusiness educational background.

A New Philosophy

In the venturesome philosophy of business education now evolving, emphasis is laid upon two new roots of business education. One is the foundation in quantitative methods and the other is that in the behavioral sciences. (Economics has always been and presumably remains a basic underpinning of business education.) If the quantitative method is to be reflected in the work in production, marketing, finance, and management in general, then a great deal of spadework must first be done in a subject such as mathematics. It should be noted that the social sciences have only recently begun to use mathematical methods that the natural sciences have employed all along. Quite naturally, then, mathematics departments, seeking to

¹ There are, of course, notable exceptions; one is David Goddard of biological science at the University of Pennsylvania. Goddard has struck out boldly and imaginatively to make the biological sciences at Pennsylvania an important contributor to liberal education.



LAKE CENTRAL AIRLINES



WEIR COOK AIRPORT, INDIANAPOLIS 44, INDIANA

meet their service responsibilities to other departments, have developed their curricula with an eye to the needs of the natural sciences. This science-oriented sequence of mathematics courses is not *per se* the appropriate one for the social-science student and the major in business administration.

It is therefore essential that the business school faculty sit down with the mathematics faculty and attempt to work out the kinds of rigorous college-level mathematics courses most appropriate. They will find that their needs are almost identical with those of the departments of economics, sociology, anthropology, psychology, and perhaps political science, and a new sequence of mathematics courses can be devised that will better serve the needs of the entire social science division.

In a similar vein, it does little good to preach the behavioralscience philosophy if business school students have not already obtained an adequate grounding in the behavioral sciences in their prebusiness educational experience. How many schools of business now require the student seeking admission to the business administration curriculum have had at least one course in each of the fields of sociology, cultural anthropology, and social psychology? And are these courses what students should be taking, or are they simply the courses designed as introductory courses for majors in these departments? How can they be made more meaningful? Here again, the business faculty must sit down with their colleagues in these departments and talk about objectives, methodology, and all the other matters that must be resolved if we are to do more than pay lip service to the behavioralscience philosophy.

What all this means can, I think, be stated concisely. The future of collegiate education for business lies wholly within our ability to integrate successfully the work of a professional school and the basic academic disciplines that underlie that work. And I think the challenge posed is nowhere greater or more difficult than that confronting the schools of business. The opportunities that lie before the business school faculty are large indeed. There are opportunities to work and collaborate with some of the best minds in the university, the best people in sociology, psychology, economics, anthropology, mathematics, statistics, philosophy, and English.

In short, I think the future success of collegiate education for business rests heavily upon the ability of the business school and its faculty to develop the interest and cooperation of other parts of the university. Such cooperation cannot be ordered. It involves mutual respect and an identification of shared interest in worthwhile endeavors. The business school will not catch the interest of or have the cooperation of those in other departments if it is not also vitally interested in and anxious to cooperate with them. A sociologist cannot be expected to subordinate his professional interests and future to the purposes of the business school.

It is at this point that the next order of interest and challenge to business school faculty members becomes clear. Just as the field of business administration has its own jargon, its own methodology, so do these other academic areas. The business administration faculty member who would seek the cooperation and advice of colleagues in another department will find it necessary to become

interested in a very active way in the subject matter of their field.

fe

af

aı

u

to

ne

th

co

st

th

fu

ec

yo

More than this, there is little point in asking the prebusiness student to complete his foundation courses in the quantitative methods, economics, and the behavioral sciences if he is then to enter the business school and sit at the feet of faculty members who are incapable of making maximum use of these fundamentals.²

The challenge that lies before the business schools can be met only by a solution that requires members of the business school faculty to develop a day-to-day working acquaintance with colleagues in other fields of the university.

THE OUTLOOK

The present-day business school must, on its own campus, be in the vanguard of those who are insisting upon higher and more meaningful standards for admission to the university. It must require for admission to its own program academic performance at least as high as that required anywhere in the university. It must encourage the general college to develop more effective standards of performance, which test analytical proficiency and communication facility, before students are certified for promotion to the upper colleges. If these promotion standards are not forthcoming from the general college, the school of business must develop its own entrance standards, refusing students who do not meet these minimal qualifications. It must work closely and on a basis of long-run shared interest with those areas of the university that

² See in this connection Maurice W. Lee, "Statistics and Education for Business," *The American Statistician*, XIV (Feb., 1960), 16-19.

are particularly important to the foundations of business education: mathematics and statistics; the behavioral and social sciences; and the humanities, especially English and philosophy.

I have deliberately confined these remarks to the undergraduate program, but the implications are fairly obvious for the graduate level, I think. A profile of the faculty member we shall be adding to our schools of business in this next generation will help clarify these implications. First, of course, he will have a real understanding of each of the functional fields of business. I hope, in fact, that he will have more meaningful and less meaningless knowledge than he now does. But beyond this, I think he will have taken a heavy concentration of his graduate work in either the quantitative area or in one of the behavioral sciences (preferably more than one), while still retaining in his program an effective amount of work in economics.

This, I suspect, means that our doctoral programs will not require more than a year of formal training in business plus about an equal amount in supporting areas, and that research and dissertations will be more apt to explore the fundamental underpinnings of our discipline than describe what goes on in it as so many have in the past. In the course of all this ferment, I should think that many of the "facts" concerning our discipline—really only hypotheses—might be converted

into operationally testable form and then studied.

GIVEN THE sort of picture I have sketched above, the business schools of the future hold great promise of becoming the most intellectually exciting places on the campus. They will demand faculties of the highest capacity and students of above-average qualification. They will stand near the center of intellectualacademic life. After all, it should really not be difficult to identify a good school of business. To discover whether it is meeting the challenges that lie before it, ask academic departments all over the university what they think of the business school and be guided by their answers.

Saves Steps,
Saves Time,
Saves Money

Only the New TALK-A-PHONE has these exclusive features!

- DYNASONIC SELECTOR. Select station performance, intermix or change as needed.
- MULTI-MAGIC STATION SELECTOR. Up to 50-station capacity in same attractive cabinet.
- "PRIVATE" or "NON-PRIVATE" MASTERS and STAFFS.
 Converse in privacy, answer calls from a distance.
- NOISE-FREE, VOICE-RANGE POWER. Rugged, All-Transistor, high-gain amplifier provides exceptional clarity and naturalness of tone.



PLUS...Incoming Call Chime; Busy Signal; Monitoring Signal; External Relay Control; Reciprocal Power Supply...all as standard features of the New TALK-A-PHONE

Proportioned like a book, only 3-inches high. The look and feel of fine-grained leather, with the strength and rigidity of steel. In charcoal gray and brushed chrome.

A.I.A. File Number 31-i-51

Write for free brochure and name of nearest distributor TALK-A-PHONE CO.
Dept. BH-6, 5013 N. Kedzie Ave., Chicago 25, Illinois

Complete Facilities + Superb Service = Successful Convention

The WESTWARD HO, in Arizona's fabulous Valley of the Sun, is a luxury hotel with resort atmosphere, yet within a few blocks of midtown Phoenix.

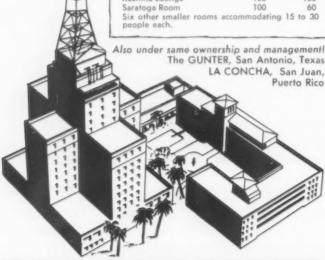




- Five hundred rooms and patio suites, each with free TV and radio.
- New Thunderbird Room seats 1500, has ground-level doors for autos and large displays. Projection room and fully equipped stage.
- Santa Fe railways; TWA, American, Western,
- Santa Fe railways: TWA, American, Western, Frontier and Bonanza airlines.

 Entire building air conditioned by refrigeration. Open year around. Special off-season rates.
- Scenic center of Southwest: Grand Canyon, Old Mexico, other thrilling side trips.
- Complete convention services. Write, wire or phone our sales department for convention planning kit. Phone ALpine 3-2181—Teletype PX-287.

MEETING ROOM	SEATS	DINES
Thunderbird Room	1500	1100
Turquoise Room	500	350
Council Room	400	300
Colonial Room	175	140
Kachina Lounge	125	100
Saratoga Room	100	60
Six other smaller rooms people each.	accommodating	15 to 30



Hotel Westward Ho

Reader and Editor

SABBATICAL LEAVES FOR BUSINESS EXECUTIVES

TO THE EDITORS:

The sabbatical leave is a well-established tradition in the academic world. Such leaves, however, are not generally used in the business community. Why is this? Should business executives be provided with opportunities for sabbatical (or similar) leaves? Would such arrangements offer another avenue toward executive development? Or are the differences between academic and business operations so great that the sabbatical leave cannot be adapted to the programs of business executives?

As one who recently completed a sabbatical leave, I can report that it is a stimulating and valuable experience, and I know that a great many faculty members share this view. Although I may have been unduly impressed by this experience since it was my first sabbatical in a quarter-century of university work, it nevertheless seems to me that we should explore the possibility of adapting the idea of sabbatical leaves to programs designed for the professional and personal development of executives.

Why has there been so little use of arrangements such as sabbatical leaves in the business world? The answer to this question may arise in part from the fact that programs for sabbatical leaves for college and university faculty members are not generally understood. A sabbatical is too often considered a sort of prolonged vacation for faculty personnel.

Actually, a typical sabbatical leave enables a faculty member, on the basis of an approved research or study project, to be relieved from regular duties either for a semester on full pay or an academic year on half pay, once every seven years of service. Such programs are followed in the belief that faculty members will perform better over a long period of time if they can occasionally break their regular routines and work schedules in order to engage in research and study that will aid their professional and personal development.

A further reason why programs for sabbatical leaves (or something resembling them) are not used to any great extent in the business community may be the difficulty of fitting such arrangements into the work schedules of most business firms. The time periods used in the academic world

INDIAN

are probably too long for business purposes. Furthermore, the half-pay arrangement would not fit most business payroll practices.

Finally, the attitudes of executives themselves may deter the use of sabbatical leaves. Business executives usually work on assignments—although they might be willing to be assigned a leave for study and development, they probably would not apply for it. Many executives would be reluctant to be absent from the "firing line" for very long. They might miss important opportunities—or fear that such opportunities would be missed. Office politics undoubtedly would be a factor in discouraging executives from going on leaves, especially for prolonged periods. Still, many executives are pleased to be selected for executive development or advanced management programs, some of which run for two- and three-month periods.

This brings us to the second question: Should business executives be provided with opportunities for programs resembling the sabbatical leaves granted in academic circles? In view of the difficulties outlined above, one can hope for little more than a qualified "yes"; that is, yes, if appropriate adaptations of the idea could be made to fit business purposes. Such adaptations would depend on the interest and willingness of business firms to work out the necessary arrangements; this in turn

d

would depend on whether the benefits were believed to be worth the cost in money, program changes, and other types of costs.

The reply to this second question leads naturally to the third question: Would a sabbatical-leave type of arrangement offer another avenue toward executive development? Leave periods might be used to test subordinates, to help determine whether the second man really could handle an assignment if it became necessary for him to do so. Such leaves could also be helpful between major shifts in assignments; even a short period of time devoted to thinking through the problems and prospects of a new assignment might produce dividends for the company.

During a leave period, an executive might study another company or specific divisions of several companies. Individual study projects could be developed that fit the needs of executives for longer-term growth. The time made available during a leave could be devoted to residence on a university campus. In some cases, business firms and universities might "trade" personnel on leaves of this type to their mutual advantage. A program of carefully planned travel is another possibility.

To a certain degree, participation in executive or advanced management programs, particularly



those sponsored by universities, provides experience somewhat related to the types of programs under consideration here. Perhaps programs individually tailored to meet the needs of specific executives and their companies could be planned as a follow-up to executive development programs.

Whatever the programs evolved, if any, it seems to me that the important elements in the arrangement should be release from day-to-day pressures; a break from regular duties; opportunity to think objectively; time for reading, reflection, and longrange planning; plus other activities that would provide broadening experiences. In short, the objectives of an executive sabbatical should be similar to those of academic programs—to further professional and personal development, to gain new experience and perspective, to rejuvenate thought processes, to stimulate interest in work programs, and to develop enthusiasm for the future.

What does academic experience suggest in the way of things to do and things to avoid in sabbatical arrangements? Probably the most important bit of information is the realization that the sabbatical is not an automatic arrangement, but a privilege made available to those whose work and project plans can justify it. The percentage of academic people taking advantage of sabbatical leaves is much smaller than might be supposed. Relatively few take such leaves regularly, partly because work programs often make interruptions difficult, and partly because faculty members do not always have ready projects that can be approved for this purpose. It is particularly difficult for administrative officers who also hold faculty positions to take advantage of sabbatical periods. Their work more nearly resembles that of business executives-and this has prompted some of the suggestions made above. Since my own work falls into this category, I have some basis for understanding the problems that might develop in adapting this idea to business situations.

A successful sabbatical requires careful advance planning. Indeed, planning is of basic importance, whether research, travel, writing, or other activity is involved. This applies equally to business situations.

Provision should be made for adequate assistance. This is one of the major weaknesses in the typical academic arrangement. The professor on sabbatical usually is cut off from secretarial and clerical help; usually he has no funds for travel, unless he is the recipient of a grant from nonuniversity sources; and he often does not have access to the equipment that he needs. These weaknesses in the university system can be corrected; they should be anticipated by business firms if arrangements of this type are under consideration.

Fairly elaborate reports at the conclusion of a

sabbatical leave should be helpful. Often articles or other products of the leave help explain what was accomplished. Unfortunately, reports are frequently sketchy. The person who has had a sabbatical needs to evaluate it critically in terms of his own experience. This will guide him in the future and help improve future programs for others.

This brings us to our final question: Are the differences between business and academic operations so great that the sabbatical leave cannot be adapted to the requirements of business executives? I have suggested some important differences in the above discussion. Substantial adaptation of the academic concept of a sabbatical leave would be required to meet the programs of business firms and business executives. Still, the idea may be worth pursuing further. It may be that some of us from the academic world could work with interested leaders in the business community to develop tentative plans for programs of this type. Such programs might be tried on an experimental basis and either expanded, modified, or abandoned as experience with them dictates.

ARTHUR M. WEIMER

Dean, School of Business Indiana University Bloomington, Indiana

CONTINENT IN EXPLOSION

TO THE EDITORS:

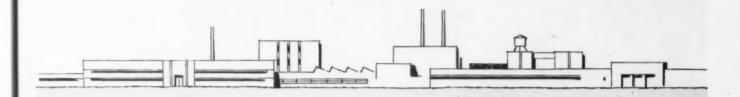
The most striking impression from a 14,000-mile trip with stops in eight out of the ten countries in South America is the over-all political, economic, and social ferment. The 145 million inhabitants are not an integrated group, either racially or economically, but the weight of this mass of humanity at our doorstep cannot be avoided or forgotten in the scheme of our own national welfare and survival.

The present political moment could be entitled "The Get Rid of Dictators Cycle." Beginning with Argentina, it has followed in succession throughout the rest of the continent so that, at present, "the man on the horse" has disappeared everywhere except in Paraguay, and that horse seems to be tottering. The steps toward a parliamentary system—it is too soon to call it democracy—are at best hesitant, and many of the new civil powers rest uneasily on the assurance of military bayonets.

The process of integrating civilian power seems to follow three phases that repeat themselves almost as part of a natural pattern. First, the civil authority gets into power because the military wishes to back it. Second, the civil powers try to

debt-free INDIANA

FIRST for 10 Years in Industrial Growth



why?

Why was Indiana first among all major industrial states in per-capita construction for the 1950-1959 decade?

Why was Indiana first among *all* states in per-capita construction for 9 of those 10 years (and 58% ahead of the runner-up state in the past 4 years)?

Why did Indiana have nearly 3 times its per-capita share of new construction in those 10 years (6.9% of total U.S. construction with only 2.5% of total U.S. population)?

Why was Indiana's portion of total U.S. construction over $3\frac{1}{2}$ times as great (6.9%) as the average for all other states (1.9%)?

Figures from Bureau of Census, U.S. Department of Commerce

Mail Coupon Today
FOR FREE BROCHURE

"Why So Much Industry Prefers to Locate in Debt-Free Indiana"

because ...

Indiana Has No State Debt! Indiana's Constitution forbids bonded state debt. Our new industries can't be billed for yesterday's obligations!

Only One Indiana Tax-Rate Increase in 28 Years! No corporation tax! No manufacturer's tax! No sales or value-added tax! No net-worth or penalty tax! No "use" or "nuisance" tax!

Indiana Is the Center of Everything: manufacturing and marketing center, population and warehousing center, shipping and distribution center!

333-H, STATE HOUSE INDIANAPOLIS, INDIAN	EPARTMENT OF COMMERCE
Dear Sir:	
Please send me a co	ppy of your new 40-page brochure
NAME	
ADDRESS	₩



4-999,900 ARE GURED OF CANCER

The 100 people pictured here, plus about 999,900 other Americans, had cancer. They have been cured. To a great extent, they owe their lives to the medical discoveries made during the past decade. Some of them recovered as a result of improved techniques and new drugs which have made surgery more effective. Others owe their lives to new radiation therapy procedures. Withal, they could not have been saved if they had not gone to their doctors in time. But it is prevention of cancer that is one of man's most hopeful dreams. Its realization could result from the dramatic research being done today in immunology and virology looking toward the discovery of a cancer vaccine. Your money is helping to support much of the

steady and encouraging scientific progress in the control of cancer. In the last 14 years, the American Cancer Society has allocated about \$76,500,000 to cancer research projects. More money is needed this year. Cancer research must not end until there is an end to cancer itself. Send a generous contribution **now** to "Cancer." in care of your local post office.





KINDLY
enter my subscription to

BUSINESS HORIZONS

OMPANY	POSITION
REET	
TY	STATE

INDIANA UNIVERSITY SCHOOL OF BUSINESS

FIRST CLASS PERMIT NO 211 BLOOMINGTON, IND.

BUSINESS REPLY CARD
NO POSTAGE STAMP NECESSARY IF MAILED IN THE UNITED STATES

POSTAGE WILL BE PAID BY

BUSINESS HORIZONS

INDIANA UNIVERSITY SCHOOL OF BUSINESS BLOOMINGTON, INDIANA affirm their existence by the programs they propose. (At this point, party dissensions usually occur, followed by consolidation with the help of the army.) Third, the civil government tries to assert itself over the military. This last step is the critical moment that determines whether the cycle reverts to the military or succeeds in breaking away from it to establish the integration of the democratic process.

Of all the countries in South America, Colombia and Uruguay seem to be ahead in this cycle and apparently have succeeded in reaching the third step. Brazil, Chile, Peru, Ecuador, Argentina, and Venezuela, approximately in that order, are still wavering between the first and second phases of the cycle. Finally, Bolivia and Paraguay are still struggling with the first phase.

The political aim is "democracy," but with it comes the need of economic development, which, in turn, cannot occur without a sound social and educational structure. The tremendous problem is the rapid creation of economic instruments. Very often, in order to assure themselves sufficient development time, the governments lean toward either a paternalistic-socialistic position or a drastic regimentation that creates dissatisfaction either from the old regime or from the masses. The first group resists any change; the second expects too much overnight. If the government balances itself on that tightrope for a sufficient length of time, there is again the danger of another military coup from the top or revolution from the masses.

Recently the United States, the World Bank, and others interested in the development of the Latin American countries have insisted on programs of economic austerity and housecleaning as a basis for further loans. This sound concept, however, cannot be implemented solely on the basis of orthodox economics but must be adjusted to the present political and social realities. This is especially important because the grievance of most Latin American countries is that the United States has been much more generous in aid-loans to Europe and Asia than to Latin America. They also claim that military aid to Latin America has very often served to maintain dictators in power rather than to contribute to the economic development of the countries.

Programs of economic discipline are easy to proclaim but difficult to enforce, especially when you have to cope with actual illiteracy or, at best, a public only partly literate in economic motivation. This is the situation now in Brazil, Argentina, Colombia, and Venezuela. As a result, explosions may yet develop in Argentina and Venezuela.

In Argentina, the military became disenchanted with Peron and gave their backing to Frondizi,

but the first Frondizi electoral campaign contained many statements which the Peronistas interpreted as promises of continuance of their party and program. Frondizi is now caught between the Peronistas, who claim that he has not fulfilled his promises, and the army, which threatens to tumble Frondizi if he offers too many concessions to the "descamisados." The Peronistas-and also Peron-have refused to accept their present leaders as the true inheritors of Peron's mantle, in the hopes that Peron might return—a fruitless dream in the view of many, including some avid Peronistas. As a result, "Peronismo" functions not as an opposition party but rather as an obstructionist element. The Frondizi government is trying to establish an austerity program. Any small progress so far has been possible only because the army has backed the government against threats of strikes and other labor unrest. What could happen the moment the army becomes disenchanted, or if repression goes too far, is anybody's guess.

In Venezuela, the Betancourt government, in order to keep the favor of the masses, has proclaimed a number of nationalistic programs. So far, the programs have served only to frighten private industry, resulting in a flight of capital, postponement of construction and investment programs, and increased unemployment. At the present time, the government is fighting to consolidate its position before new elections four years hence. If the masses and the army remain quiet, then Venezuela could emerge economically and politically stronger. (The terms "masses" and "army" have been used purposely, reflecting unfortunately the incipient psychology of class struggle that exists between the "haves" and "have-nots," since the growth of a stabilizing middle class is still in its incipient stage. Also, and as part of this psychology, we have the feeling of anti-imperialism directed against the United States as a handy scapegoat for both groups.)

Brazil undoubtedly offers the most amazing, fascinating, and unorthodox development picture of all the countries in South America. With inflation averaging 2 per cent a month, all the rules of economics seem to go by the board. Actually the banks have no money to lend industry, and risk capital is invested in real estate as a hedge against the inflationary spiral. It is not uncommon for buildings to change hands three or four times during the period of construction. In Sao Paulo especially, still growing at a fantastic pace, tremendous building projects are sporadically paralyzed awaiting the next financial transaction to provide funds to proceed. In spite of this unsettled situation, foreign investments have increased considerably since the end of the war. The vast natural resources, still untapped, plus the steady The government plan could be classified as a calculated gamble in favor of industrial growth to balance agriculture; the present inflationary spiral is considered a part of that transitional period of adjustment. The hope is that industrial growth will proceed fast enough to provide for improved living standards in time to avoid revolution. This position can in part be justified because of a basically docile population, which actually is only a few decades away from serfdom and whose living standards, although low, still represent a considerable improvement over what the people have known previously.

The present inflation, therefore, concerns the incipient middle class more than either the large investor or the illiterate masses. It helps create an internal growing market, which in turn tends to create a middle class. The program can continue as long as injections of new capital from the outside also continue. Such has been the case up to now, and it may very well be that this studied gamble will pay off because private investors will tend to protect their basic investments, and other friendly governments (mainly the United States) will not easily consider risking lack of support, thereby encouraging Communist unrest.

Argentina, Brazil, and Venezuela reflect at present the most dramatic examples of the fluid state of evolution going on, but the same forces are at work at different levels in Colombia, Chile, Peru, Ecuador, and Uruguay. Granting that each country must be studied and considered under its own conditions, it would appear that the problems and solutions applied in one have a repercussion in the others.

Anti-usa feeling is evident at all levels, not so much as an expression of real hate but of disappointment in our approach and programs. South Americans want to believe in the United States, in our basic tenets of democracy, justice, and equality under the law. But faced with economic misery, educational negligence, social indifference, and autocratic rule, they doubt our sincerity in helping them remedy their condition and in desperation will listen to the siren song of other ideologies.

South America can be integrated into our sphere of influence, but now it needs help. Above all, South Americans need to believe in the validity of our ideals and philosophy of life. It is our burden to prove ourselves, not in phrases but in deeds. If we lose South America, we will have no one to blame but ourselves.

J. A. GIBERNAU

Armour Pharmaceutical Company Chicago, Illinois

To THE EDITORS:

On several occasions *Business Horizons* has had articles on professional education for business. However, none of these articles has touched on a problem that has interested me for some time. It seems to me that those of us who teach in business areas face some unusual academic problems. Unlike most other departments of universities, the business departments stand with one foot in the academic community and one foot in the business community. Consequently, there is a very real danger that the academic obligations of the business educator may conflict with his obligations to business students and the business community.

Every educator is expected to honor three fundamental academic obligations:

- (1) He must maintain his intellectual honesty. It is difficult to see how a meaningful body of knowledge can emerge if scholars avow ideas that conflict with their true beliefs.
- (2) He must permit intellectual freedom. Just as the scholar has the obligation to express his own beliefs, so he also has the obligation to tolerate the beliefs of others. A policy of *laissez faire* in the market place of ideas stimulates the development and refinement of knowledge.
- (3) He has an obligation to instill in his students a sense of moral and ethical values. Students are expected to leave the university with an ingrained desire to act in a manner that they personally consider ethically and morally correct.

To these three obligations must be added a fourth obligation that is normally not shared by nonbusiness scholars in the humanities and social sciences. Students enter business schools with the anticipation that a business education will enhance their chances for success in their future careers. Thus, the business educator is obligated to prepare his students as best he can to assume active roles in operating businesses. By honoring this obligation, the educator is performing a service for his students and for the entire business community.

So long as the educator is favorably disposed toward the existing structure of business institutions, no conflict of obligations need arise. If, however, he questions the social and economic efficacy of the existing economic order, a real conflict of obligations exists. He must decide whether or not he has the right and responsibility to express his doubts within the confines of the classroom.

To maintain his intellectual honesty and integrity, the educator must share his beliefs with his

students. However, if these beliefs are critical of the existing system, the educator is actually performing a disservice for his students. He is creating doubt in the minds of his students.

Suppose, for example, that a business educator is convinced that securities markets serve no real economic function in the modern economy. Suppose further that he believes that security-holders constitute a class of unproductive *rentiers* subsisting on the labor of others. Does this educator have the right to express these doubts to students being trained to assume positions as security analysts?

To instill doubt in the minds of students may mean that these future security analysts will leave the university feeling that they are destined to perform functions that are socially redundant but economically rewarding. Certainly the educator does not desire to send his students out into the world with a Machiavellian ethic that values personal expediency more than social purpose. Furthermore, if it can be assumed that people operate more efficiently when they believe that they are performing socially meaningful functions, then it follows that the educator has jeopardized the future careers of his students by creating doubt in their minds.

Thus, by honoring the academic obligation of intellectual honesty, the critical business educator is forced into the position of not honoring his obligation to prepare his students to assume their chosen roles in business.

This example is not an unique possibility. Consider the conflicting obligations that might arise if a Single Taxer were to teach a course in real estate brokerage; or if a socialist were to teach a course in marketing; or if a social critic like C. Wright Mills were to teach a course in business management; or if a critic like Vance Packard were to teach a course in advertising.

The solution to this dilemma might be to permit the teaching of business courses only by those scholars who are favorably disposed to the existing economic order and the existing business institutions. This solution, however, implies the denial of intellectual freedom. The dean who selects his staff on the basis of their philosophic orientations is guilty of shirking his academic obligation to tolerate the ideas of others.

I personally believe that there can be no satisfactory solution to this dilemma. The business educator who finds himself faced with this problem can only choose one of the two horns of the dilemma. He cannot harmonize his conflicting obligations.

BERNARD SARACHEK

Division of Business Administration Clark University Worcester, Massachusetts

We buy...sell ...and quote Listed and Over-the-Counter Securities

- Member Midwest Stock Exchange
- Orders executed on all principal Stock Exchanges
- Complete statistical service:
 analyses of companies, balance sheets, opinions

Call us, Collect, whenever we can be of service to you

City Securities Corporation

INCORPORATED 1924

417 CIRCLE TOWER · INDIANAPOLIS 4 · Phone MELROSE 8-1336

Big enough to serve you · Small enough to know you





AMERICAN-MARIETTA

Sealants for Industry and Construction

Almost every industry uses sealants. Among the more than 400 products of American-Marietta's Presstite Division are specially formulated sealants that exclude moisture and dust from automobiles, mobile homes, railroad cars and aircraft. Other Presstite sealants have numerous applications in the manufacture of industrial products and appliances.

A fast growing field for sealants is construction. Special sealing compounds that resist the blast of jet engines are used on giant runways in the nation's major airports. Sealants developed by Presstite allow contraction and expansion between stone and metal in modern curtain-wall construction and are used extensively for sealing windows and exterior panels in skyscrapers.

Presstite maintains an active and aggressive research program for the development of sealants, adhesives, coatings and vibration control compounds. Since Presstite's founding in 1924, new applications for these products have averaged more than one a week.

The startling dimensions of America's economic growth and expanding markets have been projected in a special report, "The Years Ahead: 1960 To 1975." The significant conclusions of this professional study have far-reaching implications for every thoughtful executive. You are invited to send for a copy. Address Department YA, American-Marietta Company, Chicago 11, Illinois.

PAINTS • PRINTING INKS • DYES • RESINS • ADHESIVES CHEMICALS • SEALANTS • METALLURGICAL PRODUCTS ENVIRONMENTAL TEST EQUIPMENT • HOUSEHOLD PRODUCTS CONSTRUCTION MATERIALS • LIME • REFRACTORIES • CEMENT

Progress through Research



American-Marietta Company Chicago 11, Illinois



NEIL W. CHAMBERLAIN

The Need for a New Economic Unorthodoxy

In Stating the case for more unorthodoxy in economic thinking—even, indeed, in asserting that we could use a new economic radicalism—I do not intend to embroider the current complaint of the curse of conformity. Conformity is involved, but a good deal more is also in the picture.

At the moment, the club of professional economists in the United States contains no shady group that the respectable members are doing their best to keep under wraps or to ignore. There are no major economic heresies that have attracted enough of a following to secure some kind of recognition. We have had an occasional book from Kenneth Galbraith

that has stirred up a lot of welcome controversy, but this is something in a different category from a doctrinal rumble.

Compared with the period of the 1930's, when I acquired my economics, this is a dispiriting contrast. There were then a number of rival radicalisms competing for attention, from Major Douglas to Maynard Keynes. The economic fraternity was more unruly and more exciting, less refined and less remote.

THE CHANGE IN ECONOMICS

A number of reasons may be adduced for this change in the state of the art. Let me mention four that have probably been partially responsible.

Mr. Chamberlain is Professor of Economics, Yale University.

The Specter of Communism

As after World War I, the aftermath of World War II proved a grim experience. Repelled by the fascistic philosophy of the enemy, we became increasingly suspicious of our Soviet allies and the Soviet ideology. Consequently, we were driven back to a sterner defense of our own economic institutions. What was not American was un-American. There was no middle ground. The cold war was on.

The enemy ideology was communism, which meant state ownership of the means of production in the supposed interest of the proletariat. This was just another form—the Marxist form—of socialism. Other forms might not be quite so bad, but they had a kinship to the Russian system that was close enough to condemn them. Even staid British socialism was considered by many Americans to be a lapse from accustomed British rectitude.

By a further process of association, any increase in state economic activity could be regarded as only a way stop on the road to full-scale socialism. Since by and large any economic reform that might be suggested (except by the Chicago school) involved some extension of governmental authority, preservation of the American way of life dictated defense of the status quo. If this seems to be a caricature of the recent state of affairs, please reflect just a little. It was the President of the United States, revered by millions, who said just before his first election that social security was epitomized by the prison, who expressed a wish that TVA could have been turned over to private hands, and whose administration has consistently opposed extension of federal authority as a matter of principle.

By this easy process of linking—not identifying, but linking—any significant expansion of government economic activity with the road to socialism, and this in turn with alien ideologies and ultimately the Soviet brand of communism, economic unorthodoxy has been made not only disrespectable in the United States but even suspect at times. The nature of this thought control is by no means always overt or

intentionally coercive. It becomes part of one's social and intellectual atmosphere; without prompting, one apologizes or becomes defensive if some suggestion of his bears too close a resemblance to Russian belief or expression. In such a climate, radicalism can scarcely thrive.

Our Unprecedented Opulence

A second reason for the quiet passing of economic radicalism lies in the postwar prosperity that the United States has enjoyed. Even the occasional periods when unemployment has reached a 7 per cent level, as in 1958, have caused scarcely a ripple on the sea of our abundance. Unemployment compensation and old age pensions have assured relatively smooth sailing. A new generation has matured that knows the Great Depression only from the history books. The specter of joblessness that haunted workers for so long seems finally to have been exorcised. "The affluent society," Galbraith has dubbed us.

If some have sought to replace fear of depression with fear of inflation, the effort has had at best an intellectual rather than an emotional success. Even with rising prices, most incomes have risen faster. People seem to go on saving for a rainy day or for a specific purpose very much as they might if no inflation threatened. It is hard to become alarmed when prosperous. And, in the same way, radicalism seems pointless when reform seems so unnecessary. When everything is going well, there are few Jeremiahs.

io

Ca

be

ar

SU

fra

th

qu

are

reg

(ev

sio

COI

Th

To observe this impact of opulence, consider how prosperity has sapped the vitality of the labor movement. If there is any function that trade unions have historically performed in this country, it is that of a voice of social protest. Organized labor reached its peak of greatness in the 1930's when, in an unprecedented wave of sit-down strikes, mass organizing, and general unrest, it joined forces with the New Deal government to force union recognition, collective bargaining, grievance machinery, and, via these mechanisms, major concessions from management.

Today, organized labor is less a voice of social protest than a self-interested pressure group. To be sure, business unionism is nothing new, and I appreciate that Samuel Gompers said many years ago that the only credo of American labor was "More." I would only point out that in earlier years when organized labor was fighting for more, a substantial segment of it was also usually seeking, with varying degrees of intensity, to modify the system that gave it less. Within the labor movement there was, right up to World War II, a strong, even though minority, left-wing and Socialist enclave that sought to push the movement into more active reformist adventure. That dissident voice within the labor movement has now been almost wholly silenced. Social protest makes labor uncomfortable. The shaft directed at management is still, of course, common currency in union hall and convention, but demands for institutional change seldom circulate. When some unregenerate old-timer occasionally lapses, he is heard in cold silence.

The extent to which this taming of the unions has proceeded was conveyed to me forcefully last year at the 17th annual convention of the supposedly militant uaw. Mingling with delegates from one of the regions, I heard a staff member, who in earlier years was regarded as something of a firebrand, agitatedly complain to several others that Norman Thomas, the Socialist, was being quartered in the hotel assigned to them. This would, he was afraid, give their region a left-wing complexion. That the Grand Old Man of native American socialism, whose presence had for so long been a matter of course in union convention and college hall alike, should now encounter suspicion and fear of taint in these quarters, I frankly find a little revolting.

This rush for respectability on the part of the unions I would consider a direct consequence of the age of affluence. When things are going well, with wage increases coming regularly and employment relatively stable (even though the bogey of automation occasionally peeps from under the workbench), complacency supersedes the reformist spirit. The fleet of new model cars in the typical plant parking lot, the forest of TV aerials over the crop of new middle-class and worker housing, testify to how prosperity has permeated the erstwhile proletariat. Why should it complain?

If this is true of so traditionally reformist an institution as the labor movement, it is easy to see how other potential protest groups likewise have succumbed to this dulling effect of abundance on serious social criticism.

One might ask why this result is necessarily bad. If things are so good that no one complains, is this so unfortunate a condition? My answer is simple: I don't believe in utopias. Our society has not solved all its ills by spewing out more automobiles, more appliances, more roast beef, desirable though these are. And if these admitted blessings so preoccupy us that we fail to give heed to other equally or more important aspects of our way of life, they become like the lotus blossoms or sirens' song of mythology, distorting our perception. No one objects to fragrant flowers or good music, but they may have a soporific effect on our intellectual processes.

The Regained Prestige of Business

As a third cause of the decline of dissent in our society, I would list the resurgence of business influence. During the decade of the thirties, the prestige and status of the businessman suffered a rude jolt. The depression was laid to his rapacity and ignorance. Much of the social legislation of the period was regarded as a direct confrontation of business philosophy regarded as demonstrably outmoded with a new social philosophy that "put business in its place." It was a case of "off with their heads" in a figurative manner of speaking, and, naturally enough, it was quite generally assumed that business influence would never be the same again. Agencies such as the SEC and the NLRB would see to that.

But events have proved to be different. The patient not only lived but recovered and now seems almost as hale and hearty as in earlier years—perhaps even a good deal wiser for the experience.

In seeking an explanation for the dearth of

economic unorthodoxy, I do not wish to get involved in elaborate explanations of the explanation, so I will not set forth at any length the reasons for this truly amazing rehabilitation of the business figure. I suspect there were four important ingredients: (a) the commendable performance by management in organizing industry for wartime production; (b) the absence of any major postwar depression that might have rekindled earlier doubts of managerial adequacy; (c) the fortuitous circumstance that Ike, whom millions proclaimed at the polls they liked, in turn liked businessmen and brought them back into prominence in the federal administration; and (d) the fact that business profited from the hard lessons of the thirties to modify its ways. Via the instrument of human relations programs vis-à-vis its employees and public relations programs vis-à-vis the public, it developed a new style of behavior more generally acceptable.

The significance behind this restoration of business influence is that from business we need expect no pressures for economic reform. Although present-day society has developed somewhat differently from its ideological preferences, business still finds that the *status quo* is more congenial to it than anything it is likely to get through change, and certainly more desirable than what it sees in other countries. Business is more interested in keeping things as they are (sometimes even as they were) than in encouraging restless academic economists or dissident philosophers.

This ground swell of business influence has not been without its parallel on the university campus. Programs of business education have undergone such expansion in the postwar period that now one out of every seven bachelor's degrees is in business, one out of five if only men are considered. While the faculties of a small number of business schools contain truly distinguished educators, I would venture as a generalization that a majority of business-school teachers feel a close identification with the subject of their study. In addition to imparting knowledge concerning the institutions of business, I am sure there is, even though unintentionally and sometimes unconsciously,

often a transmission of the values and intellectual commitments of our present business society. Such an orientation is reflected in the statement frequently made that business schools exist to serve business, that business firms are their clients. Thus, this important enclave within our academic institutions, perhaps unconsciously abetted by alumni and trustees whose roots are in the field of business, may help to set a tone and atmosphere on the campus that is less conducive to bold speculation and economic philosophizing.

I don't want to exaggerate this effect because, from another and very valid point of view, the very dispersal of power within our society, of which private enterprise constitutes a major instrument, permits a freedom of discussion not to be found in most other societies. Few other ideologies tolerate opposition ideas so matter-of-factly. Nevertheless, without in the least denying this moral value, it does seem to me that the recently augmented influence of businessmen in our society constitutes a potent force—even though not a coercive one—making for present complacency with the *status quo*.

The Preoccupation with Methodology

A fourth reason why economic unorthodoxy has become rare lies within the profession of economics itself. Whatever one may say about our unsolved problems, it is certainly true that our economic difficulties are less obvious and insistent than they were in the decade and a half prior to the end of World War II. While economists have been led to occupy themselves with problems of a stable dollar and a stable balance of payments, such issues are not as pressing as unemployment, hunger, and war.

pa

tle

st

iss

be

ar

cit

no

fra

tio

int

est

tifi

and

ogy

Partly in consequence of this absence of economic pressures, and partly, too, as a result of the stage of development of the discipline, the leadership within the profession has passed from those concerning themselves with issues to those concerning themselves with methodology. Economics has been undergoing a process of scientification by quantification. Mathematical economics has become the prestigious

field. Econometrics has a glamour conferred by the precision of measurement. Institutional economics is now seldom given a hearing except as a rather quaint chapter in the history of economic doctrine.

There can be no doubt whatsoever about the importance of making economics a more scientific branch of learning. This must be our constant effort. Nor can there be any doubt about the value of quantification in this process. Ouantification is essential to precision. I do, however, confess to great misgivings that we have been seduced into a misplacement of emphasis. Mathematics is a language of logic, a tool of reasoning, but its value is dependentwholly dependent-on the concepts to which it is applied. I harbor the suspicion that a number of economists have become so engrossed in the logical power of mathematic reasoning that they have lessened their interest in the conceptual structure to which the logic is applied.

Institutionalism, on the other hand, is more concerned with concepts. From the wedding of institutionalism and mathematical logic nothing but good can issue, but the present artificial separation of these two postpones the date when such a marriage will be consummated, though consummated some day it surely will be.

A further effect of the profession's preoccupation with methodology and refinement of analytical detail has been to throw a light mantle of contempt over those few economists who still concern themselves with philosophical issues and ethical considerations. Values are to be taken as given, and only their consequences are subject to exploration. Only in his role as citizen may the economist explore ethical norms, and in such a role he is due no more of a hearing than any other citizen.

I do not intend to revive here the old and frayed but still vital argument over the separation of the economist's specialized scientific interests and his general cultural or civic interests. The separation is, I think, every bit as artificial as that between scientific economics and institutional economics. A significant analogy is contained in last year's Rede lectures by

C. P. Snow entitled "The Two Cultures." Here, that extraordinary physicist and novelist lays bare the dangers to our civilization that come from the division of educated people into those who have come up through the physical sciences and mathematics, on the one hand, and through the humanities, on the other. Neither group understands the other's world. The physicist, the chemist, the biologist buries himself in the world of experiment and hard logic and, generally speaking, is impatient with the philosopher, the poet, the anthropologist. He neither speaks their language nor wishes to waste his time on their subject matter. In reciprocal fashion, the social historian, the literary critic, the legal scholar recognizes the practical importance of what goes on in scientific laboratories but, broadly speaking, finds the scientific specialist a person without culture, and with whom, without a specialized jargon, it is virtually impossible to talk.

It is Snow's thesis that this situation in the modern world is fraught with danger to our survival. Society today, he points out, has incorporated the fruits of scientific knowledge into its daily existence to such a degree that a person without understanding of it is truly ignorant of the world around him. Yet every year, he suggests, our schools and colleges turn out thousands of graduates who may have been exposed to medieval history and modern English poetry but who haven't the slightest conception of what the second law of thermodynamics says or what its significance is. And, on the other hand, there is the growing breed of presumably educated persons who have received degrees in science but who have little understanding of man's struggle over the years to identify and to create the values and qualities that give meaning to existence. The gulf has widened within the last quarter-century, and the consequence may be that the humanist fails to grow with the problems and potentials to which a rapidly developing science gives rise, and the science-oriented individual lacks sympathy for and understanding of the intangible and unmeasurable values in the cultures to which his knowledge is being applied so precipitously.

What I should like cautiously to suggest is that economists who seek to become more scientific, and therefore more quantitative and analytically rigorous, run the same danger of dividing themselves from the other-the humanist-culture as do the physical scientists. No one would suggest that the physicist should therefore stop seeking to refine his science, and I trust no one will accuse me of urging that the economist should cease his efforts at quantification. But I do suggest that just as the separation of education into the two cultures that Snow has identified bodes ill for society at large, so any scientification of economics that breaks it away from knowledge of, interest in, and use of values, ethics, and norms carries with it danger both for the student of economics and the society in which he operates.

Something of such a separation has, I fear, been going on in the postwar period, and, aside from other manifest consequences, has been partly responsible for the disappearance of economic unorthodoxy. We have gained in analytical rigor, and that is good. But I suspect we have lost in intellectual vitality, and that is most unfortunate in an era when, for the sake of cultural survival, we should be alert to the significance of the social changes going on in the world around us.

This ends what is, I am sure, a very incomplete catalogue of the reasons why economic radicalism is now so uncommon a commodity: the cold war, which has led us to look with suspicion on anything that looks like concession to alien philosophy; the period of postwar prosperity, which has dulled the edge of dissent; the resurgence of business influence, which is content with the *status quo*; and the increasing scientification of economics itself, which has deflected interest from the value content of the concepts to which our more rigorous methodologies are now applied.

CONDITIONS FOR HERESY

But what of the prospects for a change in this situation? What is required if doctrinal dissent

is to become normal again? It seems to me that there are two necessary conditions: first, a sense of some significant weakness in economic society, and second, a fresh perception of society that suggests a possible solution within a theoretical context. Let me develop both of these a little more fully.

Define Important Social Issues

First, a sense of some deficiency or inadequacy in economic society is, I think, a prerequisite to meaningful dissent. It is possible, of course, to stir up doctrinal storms over issues that may be theoretically relevant but have relatively little operational significance. An example is the substitution within recent years of indifference analysis for the marginal utility concept in explaining demand. But generally speaking, it seems to me that economic unorthodoxy has meaning primarily when it attempts to come to grips with some social issue or need that orthodoxy does not clearly illuminate.

This may sound like a requirement that is easy enough to fulfill. Surely there are enough important economic problems to keep us all occupied. But this is only partly true. It is not simply that an identification of a weakness in economic society must precede suggestions for reform. A sense of need must accompany the identification, a sense of the critical importance of the problem. But even more, if the economic reformulation is to win a hearing, it must set out some socioeconomic inadequacy that arouses the same general sense of unmet need among a sufficiently large segment of economists. It is not simply any one of a number of admitted problems that is the cornerstone of significant attempts at radical revision; it is the identification of some particular strategic and vital need that elicits a response from other economists who concur.

This suggests why economic unorthodoxy may be less important at one time than another and raises a possible fifth reason for its absence today. It may actually be that, in a given period, there are no economic problems of sufficient moment to call forth widespread protest.

It is a reasonable proposition that the issues of certain periods are more substantial than those of other times. Thus, circumstances may produce unorthodoxy, and the absence of the latter may suggest the absence of the former.

This is akin to but not quite the same thing as one of the reasons previously given-that postwar prosperity has blunted economic criticism. It is hard for a man to feel unhappy on a full stomach, even though, if his satiety had not made him complacent, he could find grounds for uneasiness if he looked around. What I'm now suggesting is that it is always possible, it is just possible, that times may occur when, even if one did look around, he could find no grave socioeconomic defects demanding correction. There may indeed be no immediate need in our economic society sufficiently particular, strategic, and vital to muster out a number of discerning and reformist economists to meet it.

This may be the case, but I doubt it. Let me cite one bit of evidence. About two years ago, the Committee for Economic Development solicited from fifty outstanding economists and public citizens their answer to the question, "What is the most important economic problem to be faced by the United States in the next twenty years?" Without citing the subject titles of all fifty essays, let me list a few representative entries:

- "The U.S. Response to Soviet Growth and Relations with Western European Countries"
- "Our Political and Economic Responsibilities to Poor (that is, underdeveloped) Countries"
- "Balanced Growth vs. Creeping Inflation"
- "Abundance for What? How to Use the Rising Income That Economic Growth Makes Possible"
- "Relations of the State to the Economic System and to the Individual"
- "Metropolitan Areas: The Real Costs of Urban Renewal"
- "The Enormous Increase in Population in the U.S. and in the World"
- "Adequate Defense in the Cold War and Preventing the Cold War from Becoming Hot"

The reality of the problems posed is scarcely open to question. It does not seem very likely, then, that the absence of proposals for economic revision and reform in the literature is attributable to the absence of major problems. Nevertheless, it is significant that among the fifty respondents there was not a consensus on some particular, strategic, and vital need, but rather a dispersion of attention over some eight to ten major problem areas. It may be that it is the reduction of these numerous problem areas to some more central issue that is missing.

Find a Valid Substitute for Orthodoxy

This brings us to the second prerequisite for meaningful economic unorthodoxy. The central issue posed must be one that is not adequately solved by application of existing theory. Nor can it be readily solved by a simple ad hoc solution without reference to a broader context. The issue must be significant enough to permit solution only through a new perception of our economic society, leading to a theoretical reformulation that rationalizes any suggested solution. Let me develop this thought, since it seems to me to be the kernel of my line of argument.

If economic unorthodoxy is to make an impact, it is not enough simply to identify a problem and seek to solve it. For one thing, present economic theory may provide a guite satisfactory attack on a given problem, so that no departure from orthodoxy is needed. But more important, it is the ad hoc type of solution that is generally attempted, and this tends to take on the characteristics of a political polemic or a tract for the times, which may be highly useful in the formation of public policy but offers no modification of orthodoxy. This is not to deny the value of such exercises, but, to put them in perspective, they constitute goads to the economist and not guides; they may clear away bramble but do not break paths. The most recent example of a work in this category is Galbraith's The Affluent Society, a piece of writing that I very much admire. That book is a stinging attack on some outmoded economic beliefs and a source of some novel suggestions for improved public economic policy. It came like a breath of fresh air into an atmosphere that had begun to get a little stale. But much as I approve of the volume, I would not label it economic unorthodoxy in the sense in which I have been using that term. Unorthodoxy is a substitute for orthodoxy, and the latter is a label for a body of doctrine or theory. The ad hoc prescription or criticism will either be forgotten or will be absorbed by the existing orthodoxy without marked effect, as the Chinese are reputed to absorb other cultures. Unorthodoxy will make its impact on the guardians of the profession only if revisionism and reform come by a fresh conceptualization of the economic process. A new theoretical structure will be reared to illuminate the nature of the identified problems and to render them more tractable to logically justifiable solution within their appropriate context. Use will be made of old concepts only where they remain relevant, and with whatever modification is necessary.

Let me suggest three outstanding examples of effective economic unorthodoxy in this more restrictive sense: Adam Smith, Karl Marx, and John Maynard Keynes. Each was more effective than a number of predecessors who offered ad hoc and very partial commentaries on the same identified problem area. Each developed a new set of concepts that systematized his fresh perception of economic society and rendered it susceptible to logical analysis. From such logical analysis, each derived normative conclusions that provided the basis for public policy. Indeed, in each instance, the normative judgment was so integral to the logical analysis that one might realistically say that it completed the analysis as much as it grew out of it.

Other less successful but admirable examples of economic unorthodoxy in this more specific sense might be cited. Two of my favorites are John Hobson and Karl Polanyi. These men, too, painted on a big canvas their concept of how economic society was organized and did it in such a way as to precipitate from their

analysis policy conclusions relevant to socioeconomic inadequacies that they had identified.

THE FRUITFUL AREAS

Now I come to the point where, in the gentle language of the scholar, I must put up or shut up. If my plaint has been that we are lacking a sweeping enough unorthodoxy in the economic literature today, this must be because I sense certain weaknesses in our economic society and believe that a number of other economists would respond to the same felt needs. And the unorthodoxy that is wanted to meet those needs should be based on a fresh perception of our socioeconomic organization, clarifying and illuminating these needs in such a way as to suggest what some at least consider logically compelling solutions. Obviously I do not intend at this juncture to pull out a working model of what is wanted. All that I have said so far is not intended as a pitchman's build-up. But I can suggest some rather inchoate ideas of an intellectual quarry that would repay working, and out of which may come the roughhewn material from which can be fashioned two works of conceptual art.

Clarification of Social Wants

The first important area where innovative work is badly needed is that dealing with economic wants. Our conceptual apparatus here is scandalously deficient. On the one hand, we have a nice, refined, and relatively useless way of dealing with individual wants via indifference analysis. This is supposed to be the psychological underpinning for individual demand, providing a tidy if somewhat fragile explanation of the source of market demand. On the other hand, we have a virtual absence of a conceptual means of dealing with social wants. Despite the fact that economists many years ago (the most forceful in modern times is perhaps J. M. Clark) called attention to the fact that there were some wants of an economic nature that could be satisfied only by social

th

tie

in

ce

ho

be

in

no

re

tha

gra

sel

we

de

rather than individual choice, we have made astoundingly little progress in dealing with this aspect of the economy. Perhaps this may have something to do with our ideological blinkers, our insistence that this is still essentially an individualistic economy and that whatever contains the work "social" is already carrying us halfway to socialism.

Certainly we have approached the clarification of social wants most gingerly. Occasional efforts have been made to extend indifference analysis to cover collective as well as individual preferences. On another tack, the so-called welfare economists edged up to the problem in a tentative manner, but, finding no way of demonstrating in any rigorous fashion that the gain to one person that came from public expenditures adequately offset the loss of personal income to the one who provided the revenue, they have backed off rather ignominiously. This is one case where efforts at scientification seem to me to have interfered with progress of the profession. The problem remains, and if one line of attack has not helped in its solution, then other attacks should be launched. On this issue I find myself heartily in accord with Alvin Hansen, who has said that whether or not it is objectively provable, there can be little doubt that for most people the marginal dollar of social expenditure buys more than the marginal dollar of private expenditure. I would take this to be Galbraith's position as well. But I would go on to admit that it is not enough to assert such a proposition; the welfare economists are right at least in maintaining the need for an adequate conceptualization of the matter.

The point I would emphasize is that somehow society today is *in fact* making choices between private and public expenditure, that in part it is our failure to analyze how this is *now* done that is at the root of our difficulty in refining how it *should be* done. My hunch is that we need a conceptual apparatus for integrating private and social wants into a single schedule of values, and that by achieving this we can better make our individual and political decisions as to preferred expenditures.

In any event, I am convinced that some conceptual means of incorporating social wants into economic theory, as an integral part of our analytical structure, is a truly urgent need, and its absence is a grave deficiency both in economic society and economic theory. Without such a conceptual basis for informing our decisions, we shall continue to deprive ourselves of the education, the health, the recreational facilities, the housing accommodations, and so on, that our society needs far more than it needs more frequent automobile trade-ins, second television sets in the home, private swimming pools, and the like. We may deplore the values represented by such choices among alternatives, but we cannot now show their value relationship to each other on any acceptable common scale or by any suitable mechanism that permits more direct substitution between such alternatives.

The Private vs. Public Supply Controversy

Let me turn briefly to a second conceptual need, on the supply side. Just as we have dichotomized private and public wants and still lack a conceptual basis for relating them, so have we tended to polarize the supplier of economic goals and services as either private or public. In the private sector, we still refer to large numbers of firms of varying size, which supply goods in response to price changes and profit potentials, and over which they have varying degrees of control. We still believe in unco-ordinated market planning in this sphere of the economy. In the public sector we admit a greater degree of central planning and control largely independent of price and profit considerations, even though we do not countenance central planning inclusive of both public and private sectors. To distinguish ours from a wholly decentralized economy on the one hand, and a wholly centralized economy on the other hand, we refer to it as a mixed economy. The mix can be of varying proportions, but we like our mix to be a little heavier on the private side and lighter on the public side than is true, say, of Sweden or England.

My own feeling is that this polarization of private and public is most unfortunate. If it is true, as a number of economists believe and as I have just argued, that our social wants should be given equal consideration with private wants, rather than being regarded with suspicion simply because they are social, this may seem to carry as a necessary corollary that the mix in our economy should be more heavily public: Centralized planning should be given a larger sphere of influence. But this corollary, it seems to me, is at least partially false and mischievous. Indeed, I suspect it is the alleged corollary of public control that has precipitated the strongest opposition to the proposition that social wants should be weighed equally with private.

What is the significant difference between public and private economic activity? Is it that one is profit-making and the other is not? But this is not strictly accurate, since some private economic activity (pension funds, for example) is nonprofit, and some governmental activity may be profit-making (utility operation, for example). There is nothing about profit that represents an ideological value or principle. It simply provides a motivational means or decisional procedure for accomplishing some economic objective.

Is the appropriate differentiation between public and private the nature of their respective authorities and responsibilities? When we consider the large corporation, with its fuzzy basis for both, no principle capable of operational application seems to be involved here.

Is the underlying distinction between public and private a matter of relative economic efficiencies? This possibility need scarcely detain us. Government bureaucracies are not inherently more wasteful than business bureaucracies.

The one significant distinction between public and private which I find is that the former implies a degree of centralization of power that most of us, with our inherited values of Western liberalism, instinctively shy from. We are suspicious of authority, and the more central-

ized the authority the more suspicious we are.

The principle to which we hold fast is that of diffusion of power in our society. We mistrust public power because it is concentrated power, sovereign power. We suspect social goals because we associate them with public power. It is at this point that there is an urgent need for a fresh perception of our economic society that breaks this chain of reasoning and provides us with a new concept of economic supply—economic planning, if you will—from which may flow preferable policy conclusions.

I see no conceptual reason why, with social wants somehow identified on a value scale that entitles them to equal consideration with private wants, a planning process cannot be described that in part reflects the actual diffusion of power characteristic of our present mixed economy, with its heavy emphasis on the private sector, and in part systematizes and rationalizes that process for more effective economic planning.

If social wants are to be treated at par with private wants, I see no reason why our private management organizations cannot be drawn on to achieve one just as the other. If G. M. and G. E. were involved in the planning process to do something about our transportation mess, I am sure we would get a better solution than if they were left out. If U. S. Steel and Goodrich sought actively to collaborate with government in meeting the housing mess, I suspect we would get further faster. If private hospitals were to join with public health authorities in an effort to attack the problem of adequate medical attention for people of all income levels, we would probably find the results superior to anything that could be achieved when either acted independently.

I suspect that an examination of our economic society from the standpoint of the degree and manner of diffusion of power within a planning context would reveal a good deal more of such organization that we now formally recognize. Within our gigantic corporations the process is certainly now at work. Between federal and state governments it is

found in such areas as the administration of unemployment compensation, between state and local governments in the administration of the public secondary school system. Elements of the process are discernible in the defense establishment's methods of planning and procurement and in Title I of the National Housing Act. A fresh view of our total economy with respect to how it is articulated and administered might provide an adequate basis for a conception of economic planning that would combine both descriptive and normative features.

In any event, I am sure that the future will bring an expansion of social economic wants that ultimately will have to be satisfied. And it seems to me a useful contribution for at least a handful of the more reformist-minded economists among us to attempt new conceptual formulations of how such wants are now and can best be identified and satisfied while maintaining other moral values that we prize highly.

THERE IS A need, as I see it, for a resurgence of intellectual imagination and conceptual inventiveness if we are to respond to urgent pressures that are already felt. A powerful case can be made for the need for new economic unorthodoxies. Old perceptions of how our economy functions do not provide adequate clues for unraveling the mysteries of current and evolving problems. Fresh abstractions are wanted, from which potential solutions may flow more readily.

In the long-term development of economics as a discipline, it is bound to become increasingly rigorous, increasingly quantitative, increasingly scientific. This is all to the good. But in the short-term development of the field, as we move toward new concept-building for a changing society, we are also bound to admit back in some of the art, some of the intuition, some of the normative qualities that the scientist seeks to exclude. And this is not to the bad, but simply constitutes the other side of our profession's coin. And, I might add, it also admits back in a little more fun and excitement.

Laws and institutions must go hand in hand with the progress of the human mind. As that becomes more developed, more enlightened, as new discoveries are made, new truths disclosed, and manners and opinions change with the change of circumstances, institutions must advance also, and keep pace with the times.

> -Thomas Jefferson LETTER, JULY 12, 1816

How Behavioral Scientists Can Help Business

DELBERT C. MILLER

THE people of every society must organize their work. They must decide what is to be done and how; then, they must decide who is going to do it and for what rewards. When all these matters have been decided, people must be trained and motivated to carry out the work tasks. Their will to work becomes more significant in productivity and costing than any other single factor within a given technical situation.

The behavioral sciences are concerned with all of the psychological and social factors that influence individual and group behavior. When the focus is upon work behavior, the behavioral sciences organize their fields of knowledge and research under specialized areas called industrial sociology, industrial psychology, and applied anthropology or human organization. (A newcomer is administrative science, which purports to bring together all organized knowledge about goal-directed behavior and

decision-making processes.) In this article, the role of industrial sociology as a contributor to business management will be examined. I shall try to show what the industrial sociologist defines as his task, how he does his work, what scientific principles guide his work, and what may be the relationship between sociology and business in the sixties.

THE SOCIAL SCIENTIST

The social scientist may take three quite different roles. The only way to find out what he is up to is to ask him. For, at any given time, he may be engaged as basic researcher, applied researcher, or consultant-practitioner. If you want him to help you, you must have a clear understanding of what role you expect him to play.

As Basic Researcher

As basic researcher, he will be busy building conceptual schemes and testing hypotheses

Mr. Miller is Professor of Sociology, Indiana University.

derived from them. He will be seeking to isolate factors and to measure their relationships under given conditions. Perhaps he will test his ability to predict future behavior by manipulating the determinants that he has isolated. He will be challenged by the attempt to establish persistent regularities that will hold regardless of time and place. Curiosity drives him on, and his vision of a growing social science is a goal in which he believes with all his being.

In a great university, all members accede highest priority to this role, for it is affirmed that out of basic science will come most advances in applied science. Moreover, man's greater understanding of himself and his society rests on theoretical and basic research advances. In his role as basic researcher, the social scientist will have the greatest difficulty in understanding and communicating to the business executive. The specialized language and the motivation of the scientist contrast with the language and motives of the men who are trying to find answers to immediate and pressing problems.

The basic researcher will be cautious about extrapolating his findings to a specific problem area. He will keep qualifying-reminding the executive that the scientific findings have been shown to hold under very specific conditions and that the research is not extensive. He will tell the executive that a careful diagnosis must be made to appraise all the "interfering factors" before any application may be assumed in his own business situation. This basic scientist may add insult to injury by saying he isn't particularly interested in the executive's problem because it doesn't promise to add anything new to basic knowledge! Of course, a generous honorarium may alter his motivations and he will put on his applied research cap and go to work on the executive's problem.

As Applied Researcher

As applied researcher, the social scientist will identify the factors in the immediate problem and seek to align it with similar problems

reported in the literature or with which he has had experience. He will now work for different motives and different ends. He knows that if he can solve problems that trouble the businessman, he can win the plaudits of the business community and financial rewards to supplement his income or finance his own research.

The applied researcher ordinarily accepts certain criterion goals as objectives toward which all research is focused. These may include productivity, morale, organizational stability, low operating costs, and similar market or internal goals of the firm. If he works skillfully, he will solve some immediate problems for his business client, and he may also make some substantial additions to basic knowledge.

If the researcher is a university professor, I urge his business sponsor to humor him and let him have his way when he talks about wanting to set up some control groups. You know then he has some basic-research blood in him. He will be trying to determine the relationship of two or more variables under given conditions and to make a more definitive statement about the pattern of causation. Even if you think he is missing the main problem, you might find that he has made your firm famous. When Elton Mayo and his colleagues brought their Harvard research designs to the Western Electric Company in the 1930's, few people would have predicted that this company would become known through a hundred textbooks as the place where the basic foundations of industrial sociology were laid. Yet this happened, even though the problem of productivity of the factory was first approached by studying only five operators placed in an isolated part of the building-today known by every student of business as the famous Western Electric Relay Assembly Room.

As Consultant-Practitioner

As consultant-practitioner, the social scientist turns his basic and applied knowledge to the service of his client, advising him and helping him implement changes. He may engage in organizational diagnosis, morale surveying, or in foreman or executive training. His motives for engaging in such work may range from a desire to supplement his income, gain practical experience useful in teaching, or find an opportunity to do basic research within the firm at a later time.

THE INDUSTRIAL SOCIOLOGIST

When an industrial sociologist is doing basic research, he carefully designs his research to test a theory or set of hypotheses and then asks a firm to help supply opportunities for study. However, most contacts with firms are made when problems arise. Industrial sociologists have a pattern of research arrangements with firms that often takes the following steps:

- 1 An intensive study of the problem situation is made.
- 2 On the basis of the study, a course of action to improve the situation is mapped out for management.
- 3 Recommendations are communicated to management in a form that can be understood and acted upon. At this stage, informal conversations with executives have proved most useful.
- 4 Management takes action along the lines agreed upon.
- 5 Every step of management action is followed closely, and systematic observation is made of successful and unsuccessful implementation.¹

The Glacier Metal Company of London, England has an industrial sociologist on its payroll as a half-time consultant. The sociologist functions as an organizational diagnostician who makes recommendations after research. A specially qualified social development officer is a full-time employee who serves to implement those recommendations of the industrial sociologist that are approved by management.

¹ Drawn from Burleigh Gardner and William F. Whyte, "Methods for the Study of Human Relations in Industry," American Sociological Review (October, 1946), p. 511.

Recently Dr. Elliot Jaques, the sociologist, sought to determine the optimum size of a work group, taking into consideration the situation as a whole and its human needs. Investigation brought the conclusion that it should be a mutual acquaintance group-never so large that members could not recognize one another and greet each other by name. Groups of approximately fifty were considered the appropriate organization unit. The entire plant was reorganized on this basis, and the major responsibility of the leader of each of these groups was to build group cohesion. Technical assistance was provided for planning and operational problems.2 This is bold pioneering in a firm that was willing to put human factors first because the executive believed such a course of action to be sound business practice.

GUIDING PRINCIPLES

Research in industrial sociology has now demonstrated in a number of industrial situations the presence of certain "principles." These principles may be stated as:

- 1 The worker always desires group association. He wants intimate response, recognition, new experience, and security within a group. A worker who is not accepted or refuses acceptance (the solitaire) will probably suffer from maladjustment and become a problem case.
- 2 Most complaints and grievances are not objective recitals of fact, but symptoms of a personal-status disturbance. Indeed, the root of much serious labor trouble is not to be found in wage demands but in status demands of a group.
- 3 Cohesive groups can develop strong ingroup feelings of pride that can be directed toward common goals. Low absenteeism and turnover rates have been recorded for such groups. There is a direct relationship between section productivity and the employees' evaluation of their work groups.

² From a personal conversation in London with Dr. Jaques. Dr. Jaques is also a practicing psychiatrist and has established his competence as a social psychologist.

4 Of all the possible social groupings, the greatest cohesion can be built in the small face-to-face group. Informal social control around a group code can be very strong.

5 Group cohesion can be developed on an organization-wide basis.

6 The first-line supervisor is more important in determining the morale of a particular work group than any other single factor. The link between the first-line supervisors and their superiors is an extremely important factor in determining the morale of primary work groups.

7 The most effective supervisor is "employee-oriented." He takes a personalized approach to his employees, is concerned with the problems of motivating them, and is sensitive to their needs.

8 Short flat organizations tend to develop more initiative and responsibility in the supervisor than long pyramidal types.

9 The assignment of clear-cut responsibilities with corresponding authority reduces conflict and increases efficiency between groups.

10 Open communication up and down the line reduces the likelihood of misunderstanding and conflict among groups.

11 Changes in social organizations are more readily accepted when the persons involved have an opportunity to participate in decisions that affect them.

The implementation of these principles into policy and organization is a management challenge. Implementation can be best accomplished by those firms who have receptive and informed managers who can guide theory into the particularities of a given industrial operation so that technical and market requirements are not upset by an adaptation to the social needs of a plant community.

The management of the Detroit Edison Company in Michigan has made serious efforts to change policy and supervisory attitudes in conformance with sociological principles. This company is a major electric utility with about 10,000 employees. In 1948, an attitude survey was conducted among all employees of the company, white collar and manual, nonsuper-

visory and supervisory, staff and line. The questionnaires covered a variety of topics such as the job itself, supervisory practices, relations with others in the organization, satisfaction with company policies and practices, and so forth. The results of this survey were distributed widely in the company, and a series of discussion meetings was held to obtain broad participation in the interpretation of the information and the development of ideas for dealing with some of the problems raised or emphasized by the data.

These meetings began at the top level of the company and were carried down through the supervisory levels wherever an interest was shown. A discussion group consisted, in most cases, of a supervisor and his immediate staff of eight to ten people (note application of principle 5). The survey results were presented so that a comparison could be made between nonsupervisory employees as a whole and nonsupervisory employees in the part of the organization of immediate concern to the group. No individual or work group was identified in the data. Interpretations, ideas, and recommendations arising from the meetings were transmitted back to the line organization for action (principle 10).

Many supervisors reported that this was their first serious attempt to discuss problems of human relations with their subordinates and superiors. There was widespread and systematic participation in a program for selfappraisal and joint decisions on matters of importance to the company (principle 11).

In 1950, a second survey of attitudes was conducted in certain parts of the company. The data used in feedback included a comparison of the 1948 and 1950 results in order to detect changes in employee attitudes and in the attitudes of supervisors on certain issues. The chief executive of the accounting department held a number of individual meetings with his department heads in order to examine the survey results and to work out a plan for similar discussions at other levels of the organization. Some department heads were encouraged to go ahead with feedback meetings within their own units (principle 6). The purpose was to

make the feedback more intensive than it had been after the 1948 survey and to carry the process down through all levels of the organization, including nonsupervisory ones.

In many departments, the data were first presented by the department head and then employees met in small groups to discuss the material and formulate what they considered to be the chief problems raised by the survey results (principles 4 and 11). The meeting concluded with a report from each group to the department head and a brief discussion of the questions raised. One of the objectives of the management was to develop habits of free interchange between the supervisor and his subordinates (principle 7).

A third survey of attitudes was conducted in 1952 within the accounting department to evaluate the survey feedback process. The amount of favorable change in morale between 1950 and 1952 was found to be roughly in proportion to the amount of time and energy given to the feedback process. The chief changes were shown in the following areas: interest in one's job, feeling that one's work is important; feeling that one has appropriate responsibility; feeling that one's supervisor is considerate, likable, reasonable, and not officious; and belief that one's supervisor tends to handle complaints in a constructive way (confirmation of principles 1, 3, and 9).3

When a management official of the company was asked how he convinced his superior to invest research money in this endeavor—the company budgets about \$50,000 yearly for social science research—the official replied that he had pointed out that the new provisions being written into the labor contract were involving the company in very large cost increases. Yet no one knew what the effect would be upon employee attitudes and the willingness of the employees to contribute increased effort to the company. The survey research could provide answers and could do so for a

There were also many side benefits. It had been an educational experience to have managers and researchers from the Survey Research Center of University of Michigan meet together in the planning of the research and in the subsequent interpretation of results. Everybody was satisfied; each participant felt that he was engaged in an important function.

Perhaps the Detroit Edison Company has provided a model of what Peter Drucker has called the triple functions of an enterprise: providing economic returns, organizing men and women into a plant government, and distributing social satisfactions to the plant community. Could it be that the last of these, in spite of all the "economic men" to the contrary, is becoming the first in importance?

IN THE SIXTIES

In the future, the industrial sociologist may increasingly divide his roles so that the university researcher restricts his activities solely to basic research. He will be able to do this to the extent that foundations, universities, and business and labor organizations underwrite the effort. Then, it will be necessary for operating organizations to open their doors to the researcher and provide him with access to and facilities for basic research. At this moment, American business leaders have the distinction of having provided more opportunities for social research than any other group of businessmen in the world. If this continues and basic research is encouraged, behavioral science knowledge can grow apace.

Applied research may be carried out by inplant sociologists attached to the permanent staff of the work organization. Personnel management specialists in the firm will be increasingly competent to implement changes indicated by the research. Small organizations may

relatively small expenditure. Moreover, said the official, after the research was under way, it became clear to everyone that the company was getting its money's worth in improved supervisory and employee morale; the research effort itself had become a powerful morale program.

² See Stanley E. Seashore, "The Training of Leaders for Effective Human Relations," in Rensis Likert and Samuel P. Hayes, Jr., Some Applications of Behavioral Research (New York: UNESCO, 1957).

rely on specialized management consultant firms or university research institutes for this service. The university social science research institute is a rapidly growing post-World War II phenomenon. Among the largest of these institutes are the Survey Research Institute at the University of Michigan, the Bureau of Applied Social Research at Columbia University, the Personnel Research Board at Ohio State University, the Social Science Institute of North Carolina, the Industrial Relations Centers at the Universities of Chicago, Minnesota, California, Yale, and Illinois, and the Washington Public Opinion Laboratory at Washington and Washington State.

When the university researcher and the business leaders come to common agreement that advancement in the basic behavioral sciences is important and that it should be encouraged as is technical research, a new epoch will have arisen. At the present time, not 3 per cent of American business firms have ever indicated by concrete measures that they truly believe in this tenet. Industrial and governmental support for the behavioral sciences is but a fraction of that given the physical, biological, and engineering sciences. There is more research being conducted on cows and pigs than on social organizations.

However, there are marked indications that this situation will change. The university and business firms are working together more closely as their aims seem to converge. It is now practical and hence justifiable to put basic research into the budget. The growth of knowledge and the progress of the firm and the economy are intimately associated. The future relationship of industrial sociology and business in the sixties could culminate in a happy marriage of basic social research and progressive management practice. Corporations may emerge not only as pacemakers in the economic organization of society but also as the unquestioned social leaders of a strong democratic society.

The American way of life continually lifts the aspirations of the people. Better working conditions, a greater voice in the conditions that affect them, better housing, more attractive cities, more education, more leisure, and other demands continue to mount. Only war could diminish the forces that have given promise of the ever-better life in the emerging "affluent society."

Relationships within work groups are closely tied to relationships within the community and the society as a whole. This is no time to stand on tradition—social relations are in abrupt transition. Psychology, sociology, and anthropology have the scope to embrace problems involving the entire society and stand ready to help the business firm find its way into the promise of the sixties.

SCIENCE will fulfill what is demanded of it only on condition that it retain its freedom and independence in its work. In spite of all necessary limitations, liberty remains an essential characteristic of science, and spiritual and intellectual freedom is a necessity for scientists. Every true scientist desires to serve his nation. His work, however, cannot be complete if it is merely a service to his nation.

-Ferdinand Sauerbruch SPEECH AT DRESDEN, 1936

Business and Politics I

The Business Leader's Role in Politics

WILLARD V. MERRIHUE

EDITOR'S NOTE: As attention centers on the presidential election, the business community is keenly aware of a new dimension to the American political scene. Now, more than ever before, we are debating the question of what part, if any, business should have in political affairs. This is not to say that a new issue has suddenly been thrust upon us without warning; thoughtful businessmen have always been concerned with this question. But in this election year, increasing numbers of businessmen have to take a stand; the issue cannot be put aside.

Those who believe that businessmen should take an active part in politics are either in action or helping others to act. People who oppose the whole idea are as much against it as ever before and deplore any mixing of businessmen and political action.

It has been an intense controversy. Now that the sound and fury has subsided, there is a chance for clearer perspective. All sides have had their inning and know better where they stand and why. The time is particularly appropriate for a calm view of the pros and cons.

In these two articles, one side of the discussion is presented by a faculty member of one of our leading schools of business. The opposite view is offered by an executive of one of the world's great business enterprises. We think that only good can come from these clear-cut discussions of the issues.

Mr. Merrihue is Manager of Community and Business Relations of the General Electric Company.

Business executives across the country are arguing whether their companies and employees should exercise a more dynamic role in America's political life—and if they should, how, and to what degree. It is possible that more pro than con decisions have been reached, but the debate is by no means resolved.

For the benefit of those who are still debating, let us consider the cons that are advanced in speeches and articles by those who view this new movement with great alarm. Before examining their arguments, it must be mentioned that these alarmed observers—almost to a man—are basing their disapproval on the false premise that the majority of business firms that have favorably resolved the debate are embarked on a narrowly partisan, completely selfish course of political action.

THE OPPOSITION

Our first witness for the negative view is Arnold H. Maremont, President, Maremont Automotive Products, Chicago. Maremont has said:

"I am convinced that the mounting pressure we are currently witnessing to inject business as such into politics is ill-conceived, extremely dangerous, in flagrant violation of some basic principles of our democratic system of government and possibly illegal. To judge from the many speeches, editorials, articles, and books upon this subject which I have heard or read in recent months, this campaign is leading us not into clear light but into a murky gray area in which we may eventually confront catastrophe rather than a congenial government climate for business. To say the very least, it hardly proceeds the American way, and ultimately it may cast a Marxist shadow over all."1

(Is it the American way to argue that political participation is a universal right *except* for businessmen?)

In the Harvard Business Review, Michael D. Reagan, Lecturer in Political Science at Williams College, thoughtfully discusses "The Seven Fallacies of Business in Politics." His fallacies are, in truth, seven dubious assumptions, which he believes are the basis for corporate action in the field of political activity. If his assumptions are true (which they are not), business is indeed embarked on a perilous course. Reagan concludes his article with this advice:

"In general, I suggest that it is fine for a corporation to engage in restricted electoral activity of an impartial nature. But when the corporation seeks direct presentation of its views on public policies, it should rely on the traditional techniques of interest groups—appearances before legislative committees and party platform committees, personal meetings with individual legislators, supplying facts and advice to aid legislative judgment, and campaign contributions by individual businessmen.

"If corporations do not sensibly restrict their political activity, they run one final and most serious risk: partisan electoral activity by corporations will bring forth redoubled effort by labor. The end result might then be what businessmen have long abhorred—a (Is it, in fact, so clear that businessmen are determined to align themselves with only one political party and are blind to the dangers of polarizing the parties?)

Abraham Ribicoff, Governor of Connecticut; Charles P. Taft, former Mayor of Cincinnati; and George Romney, President of American Motors, have also sounded warnings to the effect that business should not get involved in partisan or power politics. (One might ask what companies, if any, plan to get involved in party politics. Even if there were no other reason, such involvement would surely violate the Federal Corrupt Practices Act and assorted state laws.)

THE OTHER SIDE

Now, in equally succinct fashion, let us examine some pros. Our first witness shall be Andrew Hacker, Assistant Professor of Government at Cornell University, who wrote in a paper for the Fund for the Republic that lower-echelon businessmen avoid politics for fear of hurting their business careers, thereby failing to fulfill the political function traditional of the middle class of previous decades. Professor Hacker makes the following indictment of this middle class and of corporations:

"If the executive does not participate in party politics, it is obvious that the junior executive and the middle-management employee will stay even farther away from it. It will not do to say that a few hundred businessmen take administrative jobs in Washington from time to time, nor that a financial contribution to a party or working through a

class conflict in American party politics. And in such a conflict the larger class would emerge the victor. In view of this possibility (if not probability) advocates of a vigorous partisan political role for business had better re-examine the assumptions on which their advocacy is based, and determine for their own satisfaction whether what they think is a political arrow is really a social boomerang."²

¹ From a speech at the General Management Conference of the American Management Association, New York City, May, 1959.

² Michael D. Reagan, "The Seven Fallacies of Business in Politics," *Harvard Business Review*, XXXVIII (March-April, 1960), 68.

pressure group is an adequate substitute for personal participation. Full-fledged participation in a party is the essential ingredient in democratic politics. It would be wrong to say merely that the middle-class corporation employee is afraid to join in; it is rather that he has neither the interest nor the inclination to identify himself with politics. There has been an upsurge of middle-class activity in local affairs, it is true, and this is often called 'political.' But in actuality this work is 'civic' in character, and the distinction is important.

"The corporation has certainly not set out to weaken the foundations of democratic politics, but its growth as the characteristic institution of our time is having this consequence." 3

Those companies that have resolved the debate in the affirmative evidently agree with Professor Hacker that corporation policies have inadvertently—or perhaps, in some instances, knowingly—discouraged the exercise of citizenship obligations on the part of employees and are proceeding to apply the obvious corrective.

Our second witness is George Champion, the distinguished and able President of the Chase Manhattan Bank of New York City. In a message to all employees, he said in part:

"I am convinced the time has arrived when we individually must encourage our associates to become interested in taking an active part in politics—and we must do this, too!

"The Department of Public Affairs will conduct a continuing program to encourage all of us to study, think and act as effective, responsible citizens. . . This program is absolutely non-partisan.

"Please remember this—we cannot have a government of the people, for the people unless we have government by the people and this means active participation by all of us."

For our third affirmative testimony, we have excerpted the following from a recently issued statement of the Esso Standard Oil Company of New York City:

"In today's increasingly complex world, a business corporation has two main responsibilities. One is to the business itself—its survival and its success. This entails obligations to stockholders, employees and customers. Another is its responsibility to the public and to our country to help strengthen and maintain a political and economic system which has given all of us so many opportunities.

"In recent years, it has become more and more apparent that what our governments do—be they Federal, state or local government—affects business very deeply. This includes, but goes beyond, taxation. It embraces all kinds of legislation that either helps or hinders a business in discharging its many obligations.

"Thus, the business 'climate,' which is brought about by legislation, 'politics,' and all the social forces at work, eventually affects the welfare of the company and its employees.

"With that in mind, our company has for many years been active in many community and civic activities to contribute our part as good corporate citizens. In addition, our employees have contributed on a voluntary and individual basis. We have on many occasions presented our views to Congressional and other communities. We have tried to inform the public on the conduct of our business and the views that we have held on important public affairs. We now feel that the company needs to broaden these efforts and to promote them with greater vigor.

"To that end, you will shortly see several things happening:

- 1. We shall try to keep you better informed on legislation and public affairs problems affecting the company and thereby affecting you.
- We shall try to encourage all of our employees to exercise their political rights and privileges as citizens.

"It will be up to you to decide what action, if any, you may wish to take. You may, for example, want to write to your Congressman, Senator or other state and local officials expressing your views. You may wish to speak to your friends and neighbors. You may wish to take other action. Particularly, we hope that you contribute to and actively support

³ Andrew Hacker, "Politics and the Corporation," an Occasional Paper for the Fund for the Republic, 1958.

one of the political parties, if you are not already doing so. Positive political action is important as a reflection of your own interest in good government.

"The problem is a complex and long-range one. We shall all have to work at it with dignity and purpose. Esso has long had a reputation for accomplishment in many fields—achievement with integrity. In our efforts in the field of public affairs we shall endeavor once again to merit this reputation and respect."

WHY ENTER POLITICS?

I have been asked whether there is a rationale for business in politics. A rationale may be defined as a statement of reasons for a course of action. I find it impossible to present a statement of common reasons for the burgeoning interest of businessmen in playing a larger role in American political processes. It is impossible because there is no one rationale. The weakness—and the strength—of business is that it has neither a united voice nor a consistent, precisely defined rationale for its policies. (Indeed, the very structure of our democracy is predicated on the concept that political truth is best reached through the clash of divergent views. This concept in itself is an argument for businessmen to make known their ideas in public affairs.)

It can be stated authoritatively, however, that the business enterprises that are thoughtfully blazing the trail in this complex new management work do have certain well-defined objectives. These objectives, which are approved by most stockholders, employees, congressmen, and state legislators, are highly legitimate and in the public interest. In most of these companies, these aims are included:

1 Revitalization and upgrading of American political parties so that our system of self-government may compete more effectively with totalitarian governments. The aim here is

to attempt by precept and policy to make political activity by employees as acceptable as civic activity has become, thereby restoring the traditional political function of this very important segment of the public. As Hacker has pointed out, this segment has atrophied politically in the past several decades.

Hoyt P. Steele, Manager, Government Relations, General Electric Company, expresses the intention in this way: "We expect political parties—both political parties, as well as political processes in general—to be strengthened and facilitated by this activity. And we profoundly hope that any tendency of the two major political parties to line up primarily a labor party or business party will be reversed."

- 2 Management of the political resources of business legitimately, overtly, and in a consistent and statesmanlike manner instead of covertly, intermittently, and emotionally. As has been pointed out by the critics, business has always been in politics; so has the farmer, the doctor, the trade-union, the teacher, and other minority groups with a high degree of interest in man-made laws and their administration. There was a time when businessmen held the balance of power and did not always use it in the public good. But most congressmen will tell you that in the past several decades the businessman has been, with a few exceptions, a pathetically inept manager of his political resources; or worse yet, he has abjectly delegated his responsibilities to trade associations or turned his back disgustedly on the whole process.
- 3 Maintenance of a political environment in which business can measure up to its full usefulness to the nation. Ill-advised legislation and inept administration are restricting productivity and flexibility of management decisions by adding layer upon layer of costs to what are already the highest production costs in the world. As a result, nations abroad are underselling American manufacturers in their

⁴ William H. Baumer and Donald G. Herzberg, *Politics Is Your Business* (New York: The Dial Press, Inc., 1960), pp. 39-40.

⁵ "The Corporation's Role in Politics," an address before the Public Relations Institute, Madison, Wisconsin, July 12. 1959.

own markets—and we have witnessed only the beginning of this ominous threat to our world economic leadership.

It is important to note that these corporate objectives do not include the setting up of a counterforce to trade-union political activity. General Electric, for example, believes in the words of its president, Robert Paxton, that "it would be a mistake for businessmen to conceive their efforts in legislative and political affairs as a mere counterforce to union power. The business leader cannot act from such narrow motives because he does not represent a narrow segment of the public."

To sum up, an increasing number of America's most astute and successful corporations-Ford, Monsanto, American Can, U.S. Steel, Chase Manhattan Bank, Esso Standard, General Electric-are developing policies and plans for political action that are based on thoughtful research. They are supporting programs and organizing staffs for the purpose of lending their specialized knowledge, their reservoir of previously immobilized talent, and their understanding of the market economy to the political process. An examination of the programs of two companies that are pioneering in this field, thereby setting an example for countless others, indicates that it is the critics who are making dangerous assumptions rather than the more perceptive new generation of business leaders.

The Monsanto Philosophy

Thomas J. Diviney, Director, Civic Affairs, Monsanto Chemical Company, describes his company's philosophy as follows:

"In explaining our governmental-political activities, I find it helpful to separate two terms which are often used interchangeably. The word 'politics' is here used to mean the process of selecting men and women to manage public affairs. 'Government' is the actual administration of those affairs. Monsanto has had interest in the affairs of government for many years, at varying tempos. But we have had no interest in the field of politics. Now our company is concerned with both areas.

"Our objective is to obtain government at local, state and national levels which encour-

ages profitable operation of business enterprise and, at the same time, contributes to the general welfare of society. In seeking such government, we are especially anxious *not* to establish merely a new type of pressure group.

"Now, as to what has been done and is being done. To repeat a truism, we believe that people, generally speaking, get the kind of government they want and deserve. So citizens who want good government must necessarily be concerned with the caliber of persons chosen for public offices. More and more people, therefore-particularly businessmen and women-should take a personal interest in the selection of candidates for public office. We intend to intensify this interest by making available to our employees the opportunity for education in the science of practical politics. To do this, we have selected the course designed by the U.S. Chamber of Commerce and have made it available to all Monsanto employees on a voluntary basis. The exceptionally high degree of enthusiasm for the subject matter causes us to believe there will be a continuing demand among employees for the opportunity to participate. Since there is, naturally, some limit to the number of individuals who can concurrently take the course on company time, it will be a while before we actually can equip all those who desire proficiency in practical politics.

"Another step in the political area is the active encouragement of employees to register and to vote. In many Monsanto locations, the attention of employees is being called to the importance of exercising their franchise. Where local conditions permit, we are working with commissioners of elections and others to simplify the registration process. Plant newspapers and bulletin board notices emphasize to employees that voting will take place in their respective communities on certain dates and that, while they are entirely free to vote as they please, they ought not to fail to take advantage of this privilege. In order to give effect to the political skill acquired as a result of political action courses, supervisory employees are encouraged to adjust work schedules, vacation periods and the like in order to make their own participation and that of others-possible, even at some inconvenience to Monsanto.

"We believe, furthermore, that the political process in this country is essentially based on a two-party system and that, if these parties are to be active and effective, they must have the support of the citizens. So we strongly urge employees to align themselves with the party of their preference and also to contribute their personal funds to the support of that party.

"In the field of government, we believe it is essential that citizens should be informed about public affairs, particularly proposed legislation. Secondly, we think it equally important that they be well acquainted with public officials who represent them on the national level as well as those in their state or local communities. The third requirement is that citizens make their views known to these public officials so that the latter may better represent them."

The General Electric Philosophy

In a recent letter to General Electric employees, J. S. Parker, Vice-President, Public Relations Services, revealed the broad public service foundation that is the basis for the company's political participation policy. (Critics should note the safeguards for preserving strict nonpartisanship, the conformity with the spirit as well as the letter of the law, and, above all, the determination to eschew coercion of any sort and to safeguard human rights and dignity.)

"No representative government can successfully survive without broad acceptance of the thesis that political participation is a duty not of the few but of the many citizens. The steady increase in the complexity of government and of national and local problems susceptible to political solutions has thrust new obligations on all citizens to become better informed and more active in the nation's political affairs.

"Among General Electric employees, there has been an accelerating interest and participation in political affairs. General Electric Company encourages individual political activity by employees at all levels.

"As citizens, General Electric employees can make a useful contribution to effective government through voluntary, individual participation in politics. This includes participation in partisan political activities in the party of the employee's choice.

"As an institution, the Company is foreclosed from participation in political party affairs by law. The Company does not, and will not, seek to aid or impair the fortunes of any political party or any candidate for public office.

"But Company employees, as individuals and not as representatives of the Company, have the clear right as citizens to participate actively in partisan party affairs. As to this participation, however, there are certain considerations that should be noted:

- 1. The Company will not permit the use of its funds or facilities by employees while working for any political party or any candidate for public office.
- 2. Partisan political activity by employees on Company time, or any other indirect use of Company funds, facilities, or influence for such political purposes is not tolerated by law or Company policy.
- 3. Solicitation of funds by employees in their individual capacities for political parties or candidates for public office may be conducted only in accordance with the determination of the Advisory Council (now Executive Office) on April 12, 1956. [Note: The most important of six guide lines in this instruction is that 'no employee shall solicit political contributions from any other employee who reports to him or from any other employee below his level in the Company organization.']
- 4. It is recognized that some employees may wish to run for public office or to hold appointive public office or to engage in the political campaigns of others. For these employees, the Company will seek to make such arrangements as may be consistent with its determination to avoid aiding any political party or candidate, to avoid involvement in any conflict of interest and to minimize interference with employees' fulfillment of their responsibilities to the Company.
- 5. The Company considers that any of its employees who become elected to public

⁶ From an address before the Political Participation, Business Relations, and Economics Policy Committees of the U.S. Chamber of Commerce, Washington, January 27, 1960.

office hold this office responsible to their constituents and their consciences, and not as representatives of the Company. This is the theory of our system of representative government, and the Company respects it.

6. Just as the Company guards the right of employees to participate in the party of their choice, so it respects the right of employees to hold and to publish such opinions on political issues as they may choose. However, the Company, too, has the right as an institution to develop and to publish opinions on political issues which affect or may affect its business operations, and it exercises this right. Obviously, the opinions of the Company and of certain individual employees may from time to time be in conflict. In such cases, individual employees who choose publicly to advocate opinions on public issues inconsistent with a position taken by the Company, and where their views could mistakenly be considered the Company's, should make plain the distinction between the individual's and the Company's views. This is no infringement on either Company or individual rights to freedom of speech, but is an intended protection for both Company and individuals."7

KINDS OF ACTION

In my extracurricular role of president of the Effective Citizens Organization (which was constituted six years ago to motivate businessmen to assume their citizenship responsibilities), I have had a unique opportunity to examine in detail the political participation policies and programs of the majority of the companies that have accepted this new responsibility.

These four methodologies are apparent in most of them:

- 1 Encouraging and assisting employees to work within a political party—to contribute to it, to inform themselves, and to register and to vote in primaries and elections
- 2 Making reasonable and sensible accommodations in time schedules, continuity of

service, seniority, and so forth, for employees who feel motivated to serve in public office—and to preserve individual rights and freedom of speech

- 3 Participating more intelligently in the legislative process with more scholarly, thoughtful position-taking. Presenting more statesmanlike and courageous views to legislative committees, party platform committees, and individual legislators.
- 4 Identifying and evaluating issues and prospective legislation of present or potential future interest to the company and/or its employees and communicating this information to employees, community neighbors, shareowners, elected representatives, or to any others who might appropriately be addressed.

The critics, almost to a man, endorse the first three types of action as being not only legitimate but highly desirable. But, unless the first three types of activity are solidly based on an understanding of economics, our democratic society and political system, and the urgent needs of the last half of the twentieth century, they will do little to upgrade parties, candidates, legislatures, and the administration of public affairs.

THE INTENT OF this discussion has not been to blueprint and evaluate business activity in politics. Indeed, this whole area is so new that no trustworthy evaluation can be made. The intent, therefore, has been to bring more facts into the debate so that students of this new political phenomenon may gain a proper perspective.

It is my conviction that American political processes and the art of self-government will be enriched enormously by the transfusion of business leadership and by the participation of millions of former nonactive voters with better-than-average educational backgrounds. Let the public be hopeful and helpful, patient with early mistakes, and quick to correct unhealthy trends; and let the critics continue to criticize, but be more mindful of their facts.

⁷ From a letter to General Electric division and department managers from J. S. Parker, Vice-President, December 10, 1959.

Business and Politics II

Business Should Stay Out of Politics

THEODORE LEVITT

Business seems always to be either apologizing for its existence or to be making platitudinous, rhetorical pronouncements about its good will and its sense of social responsibility. Now it proposes a new benediction for our salvation—business in politics.

Business seems determined to make politics a well-run, full-fledged business function. Thomas Reid, the Ford Motor Company's Director of Civic Affairs has said, "One of the most encouraging things on the horizon is that politics on the grass-roots level is being talked about in the same category as marketing and production. It won't happen overnight, but it's only a matter of time before talk is translated into action."

The determination of big business to get ac-

tively into politics became obvious in the campaign preceding the 1958 congressional elections. For example, several months before these elections, Archie D. Gray, a vicepresident of the Gulf Oil Corporation, made a stirring declaration of expanding big-business interest and participation in party politics. He called on business to organize a vast grassroots political offensive to save capitalism in the presidential election of 1960. Said Gray, "If our free, competitive institutions are to be preserved from destruction by the unholy combination of predatory gangsterism and crackpot socialism that is thriving and expanding under labor's Congressional benevolence, then business has no choice. It must do likewise, or throw in the towel."2

Mr. Levitt is Lecturer in Business Administration, Graduate School of Business Administration, Harvard University.

¹ Wall Street Journal, Oct. 14, 1958, p. 23.

² Quoted from a letter to Gulf's employees and share-holders, Oil and Gas Journal, LVI (Sept. 15, 1958), 112.

Within a matter of days, the nation was deluged with news stories about corporations that were planning to enter politics or already were taking to the political stump. The Syracuse Manufacturers Association's program of inplant education and outside political seminars was widely publicized as being what business could and should do. The National Association of Manufacturers announced its intention of fighting labor's "mounting political power" by helping companies throughout the land "better inform" their employees. These firms circulated information on legislation, particularly as it affected industry, and encouraged employees to become politically active.

In addition, the General Electric Company held political seminars and established a government-relations service to help its management personnel develop a better understanding of the interrelationships between government and business. The Ford Motor Company developed a political training program for management-level employees. In the 1958 election, the company provided "executive volunteers" to help local party organizations; it expects to do a bigger and better job this year.

Three weeks after Gray's blast, the Americans for Constitutional Action—a conservative, nonpartisan group with plans to screen and endorse probusiness candidates—was launched. Headed by Ben Moreell, then newly retired as chairman of Jones & Laughlin Steel Corporation, ACA had among its trustees Henning W. Prentis, Jr., Chairman of Armstrong Cork Co., and Robert Wood, former chairman of Sears, Roebuck & Co.

The U.S. Chamber of Commerce echoed Gray by urging business to get into politics, to prepare "campaign lists" for employee distribution, and to work at the precinct and ward levels, "where political decisions are made and office holders chosen." Indeed, the Chamber developed, for use by its 25,000 affiliates, a training course with recording tapes, charts, and other audio-visual aids. The course is devoted to such down-to-earth topics as local party structure, running a campaign, fundraising, and forming political clubs.

In proposing to get into grass-roots politics, businessmen are demonstrating the alarmed seriousness with which they view their position on the American scene. For them, politics has always had sordid connotations. Now they seem intent on having some of the sordidness rub off on them. What is at the bottom of this interest? It is the putative political power and influence of unions that animates the corporate thrust into politics.

The fear of labor unions has been expressed by others, in addition to Gray. The Wall Street Journal has commented that "By far the most potent force breaking down the historic distaste for political combat by business outfits is the fear of labor unions' growing influence in government."3 Reid has said, "People who make a living as employers or manufacturers are within a few years of forfeiting their rights in representative government because they are being outplayed in every phase of the political game by well-organized and well-financed teams of the giant labor unions." Lemuel Boulware, a former General Electric vice-president and author of the tough labor-management bargaining philosophy that unions have labeled Boulwareism, has summed it up by stating, "If we are scared and lulled into further stupid silence and inactivity, we are licked. It is as simple as that."

Is It a Good Reason?

Listening to all this, one gets the impression that labor is a political ogre, much like the one business was represented as being in Theodore Roosevelt's time. But a look at the facts shows that unions have little of the power or impetus that is attributed to them. One of the greatest political myths of modern times is that unions can swing blocks of votes.

Business spokesmen always imply that Walter Reuther, head of the United Auto Workers, is so profoundly effective politically that he needs only to wave a wand and all his loyal

³ The three quotations in this paragraph are from the Wall Street Journal, Oct. 14, 1958, pp. 1 and 23.

subjects and dozens of congressmen automatically vote his way. That is sheer nonsense. Reuther heads our country's most politically active union, yet the union obviously is a straw man. The fact that labor-backed G. Mennen Williams has been elected governor of Michigan six successive times has an ominous significance to watchful business executives. But they forget that his margin in the 1958 election was even less than in 1956, when the Republican presidential candidate carried the state by 350,000 votes, or that the Michigan legislature remains strongly Republican and anti-Williams. They have also overlooked the fact that, for most of Reuther's solid reign, Detroit has had a nonpartisan mayor of clearly Republican complexion.

Another example of the mythical political power of union leaders is John L. Lewis. His single-minded stubbornness lifted the mineworkers out of virtual industrial serfdom. No one could be more esteemed among the miners. When he demanded it, they dutifully walked off their jobs during World War II; they took two-month strikes when the kitchen cupboard was bare. But on nonjob matters, the miners acted independently. They defied him by voting for Roosevelt instead of Willkie in 1940; in 1956, they re-elected Senator Chapman Revercomb, a man who, from the union viewpoint, holds one of the blackest voting records in history.

In another instance, Robert A. Taft was reelected in Ohio by an enormous majority in 1950 at the height of his unpopularity with unions. The political ineffectiveness of unions -except in a reverse fashion as a kiss of deathwas illustrated by the behavior of the Seventeenth Ward in Columbus, Ohio. Residents of this ward are Negroes, steelworkers of immigrant stock, and disciplined railroad tradeunionists. These people should have been safely against Taft with his "slave-labor law" and aristocratic antecedents. They should have been solidly for his opponent, "Jumping Joe" Ferguson, the son of an Irish immigrant. But just to make sure, the local unions rang every doorbell in the ward and supplied volunteer drivers at registration time. On election day, poll watchers made sure that all registrants appeared; a baby-sitting service was offered to mothers. Yet the safe-and-solid Seventeenth went 40 per cent to Taft, an incredibly high figure considering all the facts and anti-Taft effort.

Actually, the political inclinations of the unions are greatly exaggerated. The extravagantly publicized intention of Walter Reuther to take over and socialize America, as has been claimed in full-page, national newspaper ads by the Committee for Constitutional Government, is a joke. During the week such ads appeared in the fall of 1958, A. H. Raskin of the New York Times wrote:

"Mr. Reuther not only achieved relatively peaceful settlements with the auto Big Three, but he did it on terms widely applauded by conservative economists as representing a curb on inflation and a spur to recovery. One steel executive, worried about the prospects of stiff bargaining demands in his industry next spring, said this week that the steel makers owed a vote of thanks to Mr. Reuther for the moderation he showed with auto producers. The comment was made the same day that Mr. Alcorn [Republican National Chairman] was telling an Ohio audience that the union was the principal peril to the survival of free enterprise."

Reputation Only

What the unions do have is a *reputation* for being powerful, a reputation precariously sustained by the words of their leaders and the fears of their enemies. No one knows this better than the unions' insiders. In private conversation, they confess it openly.

As for the rank and file, it is an inert and apathetic mass. The militant abstractions pronounced by union leaders, union newspapers, the daily press, radio commentators, politicians, and corporate speechmakers are simply neither read nor heard by the vast majority. Evidence enough is that the AFL-CIO'S Committee on Political Education (COPE) failed miserably in its fund-raising drive in 1958. And

⁴ New York Times, October 19, 1958.

at the very moment that business is so frenetically clamoring about the encompassing political power of unions, the unions have reaped one political defeat after another. It has been twelve years now since the Taft-Hartley law was passed, and although they have made its repeal a running election issue all that time, the unions cannot get rid of it. The legislative restrictions on unions are actually growing. Right-to-work laws now exist in twenty states. Congressional investigators are becoming more confident and aggressive. The nearest thing the unions have had to a decent victory was the defeat of right-to-work referendums in 1958, but these were not a political issue. Workers voted against them not because they were union members but because they were employees. It was a simple matter of breadand-butter self-protection. The outcome can no more be attributed to labor's political effectiveness than Eisenhower's two sweeping victories can be attributed to the Republican party's popularity.

A recent example of rank-and-file apathy occurred April 13, 1960 in Columbus, Ohio. The cio Council sponsored a political rally to introduce state and local candidates to union officers and members from the surrounding area. These were candidates for major offices, and both Democrats and Republicans were invited. Thirty-five candidates showed up—but only fourteen union officers and members appeared. That is apathy.

Regardless of all the talk about "labor's Congressional benevolences," labor has continuing troubles with the government, while business is doing rather well. In spite of reciprocal trade acts, it receives some very helpful tariff protection, import quotas, and export aids. As the government buys and stockpiles wheat and cotton for farmers, so it does with aluminum, copper and a variety of other bigbusiness products. The Federal Deposit Insurance Corporation helps banks attract depositors and remain solvent. Airline companies-mostly feeder lines now-get helpful subsidies. Extensive and enormously costly research by the Bureau of Mines and the Atomic Energy Commission is made available gratis to business. In recent years, Congress has passed liberal depreciation and tax writeoff laws to reduce business risks and encourage investment. More federal money than ever before is going into the improvement of highways, ports, and inland waterways. The federal urban-renewal program is a windfall to the building industry as well as to steel, cement, construction machinery, and dozens of other industries. And the new small-business laws certainly show no hostility to free enterprise.

THE PROBABLE RESULTS

It seems obvious that the corporate thrust into politics is unnecessary; in addition, it probably will be a miserable, disillusioning failure. It will do more harm than good, and the party most harmed will be the corporation itself.

Business fights to win. If business is really serious, it will not be satisfied by fighting the unions' lame political power merely to a draw. But if domination of politics and government by unions is bad, then domination by corporations is bad. It may not be too early to ask whether such business domination might not yield some sort of frightening counterpart of the Corporate State—a neosyndicalism in a gray flannel suit.

Even if this should not occur, active corporate politics will only further polarize American political life, driving the nation into two uncompromising extremes of political contention. The possible dimensions of this are already evident. Early in 1958, Meade Alcorn, then Republican national chairman, held a series of regional meetings with top executives of big and small business from New England to California. These officials were organized into five groups that were to coach junior executives on precinct-level politics-not just for 1958 but more particularly for 1960. It takes no particular political acumen to guess which party these executives will serve. With all their claims of nonpartisanship, it is as inevitable for corporations to become solidly identified with the Republicans as it is for labor to become identified with the Democrats. It seems unlikely that the United Auto Workers and General Motors will ever endorse the same candidate. They will drive each other into opposite camps—both extreme.

Aside from the grim eventuality of a unitary state or a polarized society, the whole project simply defies reality. I cannot imagine business successfully sustaining an active political interest among its supervisors and managers. Business will not be able to get them to ring doorbells (if they do, they will ring the wrong doorbells because they will be operating in the suburbs rather than in the river wards) and go to precinct meetings-certainly not more than once. For one reason, this type of work is not particularly satisfying; they derive more satisfaction from their work at the office. The usual plums for politicking are patronage jobs, and these have neither prestige nor financial appeal for aspiring executives. This group cannot shake off the pejorative idea that politics is dirty and low-certainly so at the precinct and ward levels. The president of a large corporation may think politics is exciting when he plays golf with Ike at Augusta or confers with the political bigwigs. He thinks, therefore, that others should do their part at appropriate, if slightly less glamorous levels, but the outlook at these levels is not so rosy.

As has been demonstrated before in American history, white-collar and managerial groups have no political staying power. The McCarthy investigations, for example, depended on an aroused middle- and uppermiddle-class constituency for continuing mass support. But its members were too statusconscious and too preoccupied with their private affairs to give such support. So long as we continue to be the kind of materialistic society we are, this will continue to be so.

Compromise and Ambiguities

There are still other reasons why business will never be an effective or happy warrior in politics. Once power is obtained, the results are unpredictable. If business gets a business Congress and governmental powers, it will find itself no more pleased than it is now with an allegedly probusiness administration in Washington. This is the inevitable fate of politics. Because politics is the art of the possible, people or groups with strong feelings and special interests are going to find themselves and their hopes compromised.

For example, within a year of its assumption of power during World War II, the British Labour Party had to call out the troops to quell a dockworkers' strike (non-Communist, I must emphasize). That was the first of a long series of setbacks to the government by the people who had elected it. Here at home, all kinds of obligations and ambiguities have crept into the Eisenhower crusade. When Ike was elected in 1952, most businessmen could scarcely conceal their glee at being in the saddle. But almost at the beginning, Harlow Curtice, then president of General Motors, gave some very revealing advice to a group of Boston executives. He said that "Business leaders now have the responsibility and must accept the calling of building on these foundations of the free economy" that the new administration has established in their interests. Note the juxtaposition of the idea of economic class (his reference to business leaders) and ideological obligations (the reference to "responsibility"). But even more significantly, he used the word "calling," which, according to Webster's New International Dictionary, is "A divine summons . . . to a particular act or duty." Such a summons brooks no compromise. Is business prepared to be uncompromising in party politics?

Shortly after Curtice's statement, Sinclair Weeks, then Secretary of Commerce, told a group of executives that with business in the saddle in Washington they had an obligation to support the administration, and that to let it down by permitting a recession to occur would be tantamount to treason. That was at the start of the 1953 recession. During the 1957-58 recession, Treasury Secretary Anderson implied the existence of a similar obligation. He told the American Bankers Association, meeting in Chicago in 1958, that it had an obligation to support the Treasury in its difficult refinancing

chores, regardless of the painful risks involved. Such a suggestion could only have come from one party member speaking to another about his party obligations.

While business has for the most part kept its end of the 1952 bargain with the administration, many businessmen now feel that the administration has reneged by its continued insistence on the 52 per cent corporate income tax, the steep personal income taxes, its dangerous tight-money policy, its antitrust enthusiasm, and even Nixon's declaration in 1958 that social insurance should be increased and expanded. Actually, the administration has had no choice but to renege. In politics, as in marriage, there must be compromise and giveand-take. To get votes-enough of them, that is-politicians have to do the things that will bring in the votes. Office-seekers and officeholders have always discovered that this requires a great deal of flexibility. Previously held standards, opinions, positions, and values are invariably strained if not modified. But is business prepared to play according to the rules of expediency? Can it, any more than unions, maintain its lofty aim of idealistic dedication to a pure and upright cause?

H. L. Mencken devastatingly stripped the political process of its romance. Going perhaps a little too far, he said that politicians' only special talent is getting and holding office. They are the dealers in one commodity-votes. With considerable truth and insight into the necessity of expediency, he glibly remarked that if a politician found he had cannibals among his constituents, he would promise them missionaries for their Sunday dinner. What besides the shibboleths of unfettered free enterprise is business prepared to promise? It will find that selling a complex abstraction like the need for business to be entirely free of government controls is not so easy as selling lipstick or refrigerators.

Effect on Profit-Making

As an institution, business' only legitimate function is profit-making. That is not only my opinion but also the opinion of the Securities and Exchange Commission. (A stockholder's resolution that the Greyhound Corporation drop segregation on its buses in the South was disallowed a few years ago by the SEC on the grounds that a corporation is run for profit, not for social reform.)

Involvement in politics can lead only to corporate inefficiency and possible ruin. The corporation that becomes deeply involved in party politics will necessarily dilute its basic profit-making function. The politically active corporation will have to become less seriously profit-minded. When that happens, it will cease to deliver the goods abundantly and efficiently.

Unions provide an instructive example. The world's most ideological unions are in Europe. In fact, they are almost wholly ideological, which accounts for their relative impotence on the economic front. When was the last time anybody heard of any solid bargaining by a Continental union? When they strike, is it for economic or for political reasons? Unbelievable as it sounds, they don't even have that most basic element of trade-union machinery, the grievance procedure. What I am saying is that the intrusion of ideological cant into a functional, secular institution spells inefficiency and perhaps suicide.

WHAT BUSINESS SHOULD DO

In its preoccupation with the elaborate myth of union political power, American business is once again demonstrating how easily it can be persuaded that its troubles stem from some sinister outsider—something or somebody that must be fought by means other than paying attention to its own internal operations. The fact is, there are much better ways in which business can and should fight for its life.

Nobody is going to man the barricades against business if it is a good provider, and American business has been an enormously good provider. But business' slate is not entirely clean. I suggest that if it wants to curb attacks, it should put its own house into better order.

For one thing, big business can stop fighting against those benefits that Americans clearly desire and that are government's duty to provide. That includes improved public housing and certain minimal national health and hospitalization programs. It might also consider saying a few good words for civil liberties—and not just when its own neck is in the noose of some kangaroo court masquerading as a congressional investigating committee.

Business can take a few lessons on what to do from the American Telephone and Telegraph Company. Heré is a natural monopoly as eminently qualified for government ownership as the post office and the army. Yet while less eligible candidates are occasionally suggested for nationalization, AT&T is never mentioned. Over half a century ago, Theodore Vail, who was AT&T president, saw the company's vulnerability and established a policy that has been religiously and effectively followed since. Instead of propagandizing its detractors as socialists and un-American, the company was to dedicate all of its might and imagination to solid, profit-making public service. The policy had three points:

- 1 Dedicated, all-out, and dignified service was to be offered to the customer. No excuses were to be offered, and customers were to be treated with royal regard and served with dispatch.
- 2 A continuous and vigorous program of product improvement and communications innovation was to be undertaken, bringing the results to the public as quickly and as cheaply as possible. (As a result, while American railroads sat back as the airlines and truck lines stole their business, AT&T, with no competitors, was being restless, creative, productive, and an enormously good provider.)
- 3 The company management was to make it an uncompromised duty to provide service wherever it was demanded, regardless of difficulties and cost; and it was to assume the obligation of finding the necessary capital

and making the necessary profit to do the job without running to the government for subsidies and handouts.

General Motors offers another example of what can be done in the way of creating good relations. People cannot seem to stay angry with this company; they see and know what General Motors has done for them. It could do more, particularly in the auto-servicing line. but it is significant that several years ago, when Congress was berating GM for the way some of its dealers were being treated and the way prices were being set, the public failed to become very excited. There were no newspaper editorials calling for Curtice's head, as there have been with executives from other companies and industries. The very people who may have ventured a few unkind remarks about GM rushed out the next day to buy Chevrolets or Pontiacs.

DuPont is a similar example, antitrust attacks notwithstanding. Everybody sees and values its "better things for better living, through chemistry."

The standing of these companies can be contrasted with that of the banks. For years, bank vice-presidents sat imperiously behind marble pillars expecting their patrons to come begging for favors. This has changed somewhat in the past few years, largely because of the more imaginative competition of savings and loan institutions. Still, it is small wonder that bankers are unpopular and such frequent targets of political attacks.

Business will do itself and everyone else much more good by concentrating more vigorously on the secular profit-building, customerservicing reason for which it exists. Indeed, its survival would be undermined, not enhanced, by involvement in party politics and endless good works. The more effort it spends on these distractions, the less effectively it will deliver the goods. And when it stops being as good a provider as society expects it to be, then business will certainly be in serious trouble.

Case Study

A SMALL COMPANY WANTS TO GROW ONE SIZE LARGER

J. Hugh Funk

Fremont A. Shull, Jr.

One of the largest bakers of nonbread items in New England is Murray's Bakery, which produces a variety of cakes, pies, rolls, and doughnuts—commonly referred to in the trade as "sweet goods." These products are distributed in three states within an approximately 150-mile radius of the bakery. The firm is relatively small when measured by industry standards; sales for the fiscal year ended May 31, 1959 were slightly under \$2 million.

THE COMPANY

History

Murray's Bakery was incorporated in 1955 to continue the bakery business of a proprietor-ship formed in 1946 by William S. Grove, the corporation's president and principal stockholder. Experienced in the restaurant business, Grove purchased a small retail bakery¹ upon

his return from service in World War II. In 1947, he branched out into wholesale distribution by trucking sweet goods into nearby towns. In the following year, he built a plant designed for wholesale operations. The annual sales volume of the wholesale business was \$300,000 by 1950 and increased to \$450,000 in 1952. The plant was destroyed by fire in 1953. Grove, continuing in business with makeshift arrangements, immediately started to rebuild, but this plant was completely destroyed by fire three months after the rebuilding was completed.

th in ra ni ba

CO

ar

fo

sa

W

te

se

the

the

the

Co

pa

and

In spite of these setbacks, Grove continued the business and built still another plant at the same location. This bakery, known as the Maple Street plant, is a one-floor building of steel and masonry construction with 16,000 square feet of floor space. Sales volume in 1953 amounted to \$508,000; in 1954, sales grew to \$882,000. Sales for the first five months of 1955 were \$428,500; at this point, the business was

¹ A retail bakery is one in which baked goods are sold over the counter on the premises in which they are baked.

incorporated and placed on a fiscal-year accounting basis.

Grove saw a significant growth potential for wholesale bakery operations in the south-central part of the state. He thereupon decided to build another plant, incorporating his ideas of advanced bakery design, on an eight-acre lot that he owned at the edge of town. In spite of serious financial problems, this project was completed in 1957. The land and the 20,000 square-foot, one-floor, ultramodern building were sold to an institutional investor under a ten-year leaseback agreement, which provided the company with options to repurchase at various times during the life of the lease. This plant is known as the Hickory Street plant.

Competitive Situation

While Grove knows of no bakery operation precisely similar to Murray's, he points out that many bakeries compete, either directly or indirectly, in various areas. The competition ranges from the large national baking companies to chain-store bakeries, neighborhood bakeries, and home bakers. "The bakery business is not regarded as very glamorous; many company earnings records are not impressive, and there are few concerns with reputations for making good money for investors," Grove says. "However, one company out of Boston was about the same size as we were in 1950 in terms of sales volume, but that company is now selling six to eight times what we are. With their coffeecake, cheesecake, and brownies, they are not directly competitive with us, but they are in the same stores we are in."

Company Organization

Management. The management of the company is in the hands of the following directors and executive officers:

William S. Grove, Chairman of the Board,
President, Treasurer, and Director
Harry Grove, Vice-President and Director
M. K. Kinnear, Secretary and Director
Kenneth Bennett, Sales Manager and Director
Edith Grove, Arne West, and P. N. Riddell,
Directors

William Grove handles finance and production. Harry, his brother, is in charge of engineering and purchasing. Kinnear, who practices law in the town, acts as company attorney. Bennett, who has been with the company for five years, previously had eight years' experience in the food and candy business. Edith Grove is the wife of William Grove. West is a realtor, and Riddell, a man of wide business experience, is associated with prominent business interests; both are local residents.

Organization Plans. Grove believes that the present organization is satisfactory; however, he has plans to strengthen and improve the setup as circumstances permit. While he has high hopes that certain of his men will develop and grow into positions of greater executive responsibility, he is also moving to strengthen his organization by bringing in men from outside the company. Marshall Price, a graduate of a university school of business with several years of successful experience in public and industrial accounting work, was recently employed as company accountant. Grove is looking now for a man capable of relieving him of direct responsibility for production, as well as for men to handle orders, shipping, and market research responsibilities.

Personnel. The personnel function is handled on an extremely informal basis, although Adam Perry, William Grove's assistant, interviews job applicants and fills vacancies as one of his duties. On one visit of the case writer to the Hickory Street office, an obviously inexperienced youth approached the switchboard operator-receptionist and inquired about a job opening. When told that there was none, the boy fled before the girl could suggest that he fill out a job application form. The executives responsible, including the bakery superintendents, do their own firing.

The company has approximately 120 employees, 70 of them men. Only the truck operators in two of the branch stations are unionized; Grove reports that relations with union officials have been amicable.

PRODUCTION

The production of doughnuts and pies was transferred to the Hickory Street plant when it was completed. The two production lines there can turn out 2,500 dozen doughnuts of several varieties each hour. The Maple Street plant produces the various types of cakes and rolls sold by the company. The Hickory Street plant is mechanized to a greater extent than is the other plant, and arrangements for materials handling are much more satisfactory. A rail siding at the rear of the newer plant makes it possible to unload materials easily and quickly -even in very large quantities-from rail cars or tractor trailers. The area at the rear of the building is used for materials storage and is separated by a fire wall from the area of baking operations. As goods are baked and packaged, they flow smoothly toward the building's front section, which also contains a large area for temporary storage of finished goods and several truck-loading docks.

Quality Controls

Company officials regard quality as very important and look upon the maintenance and improvement of quality standards in production as an important key to the success of the company. Only first-grade materials are purchased. Company officials have worked out recipes and mixes for the firm's use. Carefully controlled cooking and cooling temperatures are maintained, and constant automatic checks insure that frying fats do not break down in quality or become rancid while used in frying processes. Grove maintains a careful watch to insure that top standards of cleanliness are maintained.

Purchasing

The principal materials needed for production are flour, sugar, shortening, eggs, yeast, milk, fruit, corn syrup, and packaging materials. Purchases are made at the best prices possible. For example, shortening arrives in tank trucks under contracts placed eight to twelve months

before delivery. Sugar and flour are received in rail carload or full truckload lots. Corn syrup is received in tank trucks. Grove believes that raw material costs are not significantly different from those paid by larger bakeries.

Production Scheduling

For several of its products-doughnuts, especially-the company has production capacity well in excess of sales demand. Goods are produced only against orders. The company usually receives its orders two days in advance of delivery dates, and shop production schedules are worked out by the two shop superintendents after the advance orders from all sources have been assembled, totaled, and classified in the central office. Scheduling presents a knotty problem, since an hour of time for several men may be required to clean up after a production run. Thus, if a particular run requires only a short time, disproportionately heavy costs will be incurred in setting up for the run and cleaning up after it.

Another factor influencing costs is the relatively heavy need for hand labor. Certain goods, especially those produced in the Maple Street plant, require a relatively large amount of hand labor. Extensive use of hand labor is required in packaging at both plants. Grove states that more machines could be used, but space and financial limitations, as well as the relatively short runs for some items, preclude their installation.

MARKETING

tl

tl

th

cl

in

cl

th

to

th

Distribution System

The company is proud of its ability to supply any customer with fresh bakery products each business day. Company-owned transport trucks deliver freshly baked goods to branch stations, and smaller delivery trucks, owned and operated by independent route salesmen, deliver these products to retail customers. The company currently serves more than 3,000 customers, including grocers, restaurants, other bakeries, company lunchrooms, vending ma-

chine operators, hospitals, schools, and colleges.

Six branch stations are located in the company's fairly compact market area. A number of delivery routes radiate from each branch station. In addition, a small company-operated baked goods store is located in another town, and one route covers the territory in that area.

Grove describes the drivers' operating procedure as follows: "Drivers operating from the various branches load their own trucks and deliver to customers, and then return to the branch to check in their collections. These drivers are generally the first out on the streets with bakery products every morning. Some route men are out as early as 1 A.M., dropping off their goods and delivering to all-night restaurants. They deliver in this manner until the stores begin to open and then call back to collect from the merchant and perhaps leave him more merchandise.

"This system offers the consumer fresh products when the store is opened each morning. In most cases, the route man places the goods on the merchant's shelves and removes everything unsold from the previous day, allowing the merchant full credit for the unsold merchandise."

Markup policies of the company are illustrated by this example: Assume that an independent route salesman places an order for sweet goods totaling \$100 at retail. He pays \$64 and charges the retail merchant \$80. Since the route salesman is required to collect and return to the company all goods unsold from the previous day, he is granted a "stale allowance" not to exceed 8 per cent of \$80. Most route men have little difficulty in estimating their route sales within this limit of tolerance.

The company has been very successful in using neighborhood grocers as an outlet, while the large bakery departments in supermarket chain stores have frequently been disappointing. Grove questions the value of vending machine sales since there is considerable risk of the customer's getting stale goods, which tends to tear down the reputation for freshness that the company has endeavored to establish.

Securing an adequate allocation of shelf space from the grocer has not been much of a problem, according to Grove, because the grocer notes which items are selling and allocates space accordingly. The grocer is also interested in the service provided in the removal of day-old goods and in attractive displays of fresh merchandise.

Other Sales

The company operates a small store at each plant location as well as in two branch stations. The sales in the four stores total about \$300,000 annually. The success of the drive-in store at the Hickory Street location has been particularly encouraging.

Private-label business for other bakeries and for certain chain grocery stores accounts for approximately 16 per cent of all sales. In most instances, the private-label products are picked up at the bakeries by the distributors' own trucks. Much of the private-label merchandise is sold in three adjoining states.

Day-old goods, along with "cripples" that occur in production, are sold at reduced prices in the four stores. The floor sweepings from each cleanup are sold to farmers for hog feed.

Pricing

All items, including private-label goods and specials, are preticketed before being packaged in cartons for shipment. The company's basic pricing policy requires that all items of production contribute to the firm's net profit. Hence, each item sold represents an effort to price that item to show a profit—with consideration given to its size, types of ingredients, and other cost factors. When a new product is developed, a market survey is made to find the maximum price at which the product can be sold in quantities sufficient to justify production. New items that can be produced and marketed at a profit are sold first in retail stores, then on one or more routes.

Grove, in commenting further on the pricing of new products, explains that the breakdown

on a new item designed to sell at retail at \$.49 might appear as follows:

	Per Cent of Total Cost	Cost (to nearest cent)
Cost of materials	33	\$.16
Discounts to route men and retailers Production costs, selling	40	.20
and administrative expenses Profit before federal	25	.12
income taxes	2	.01
	100	\$.49

Advertising and Promotion

Annual reports show advertising and promotion expenses at \$21,600 in fiscal 1957, \$42,000 in fiscal 1958, and \$26,000 in fiscal 1959. Advertising over the years has been chiefly on bill-boards and signboards, in buses, and by radio. The company cosponsored the telecasts of some minor league baseball games in fiscal 1958 but dropped TV advertising in fiscal 1959. Other promotional activity has included highly publicized store openings at which company sales representatives were present.

Sales Growth

Murray's Bakery has had a significant and steady growth over the last decade. Even so, the company still needs significant sales increases in order to exploit its production potential and achieve optimum operating efficiency. Indicating that he is looking for some means to expand sales more rapidly, Grove says, "In the last few years it appears that, in spite of all our efforts, blunders, and everything we try, we grow about 10 to 15 per cent each year. We just can't seem to shake ourselves out of this groove."

Seasonality may be a factor inhibiting sharp growth; company sales may drop as much as 20 per cent during periods of exceptionally warm weather. The average dip in sales for the hot summer months is approximately 10 per cent compared to average monthly sales over the year.

Stock Ownership

Of the company's 150,000 authorized shares of no-par common stock, 83,932 shares have been issued as follows: 59,800 to William Grove; 60 shares each to Edith Grove, Harry Grove, and Kinnear; 10 shares to Bennett; 5 shares each to West and Riddell; and 23,932 shares to approximately 300 local investors when the stock was offered to the general public after July 25, 1957. The proceeds of this public issue, approximately \$100,000, were used to improve the working capital position of the company.

Financial Analyses

All figures for the comparative operating statements and the comparative balance sheets have been rounded to the nearest \$10. These data have been taken from certified annual reports. The presentation of selected financial ratios for several years for the company permits a comparison with the 1957 industry average.

Accounts receivable (trade) are receivables from independent route men and from the company's private-label business. Employee receivables represent purchases of uniforms and advances. Drivers' contracts represent the purchase of routes and/or trucks from the company. Inventories consist of raw materials and packaging materials, and are priced at cost or market, whichever is lower. The building escrow fund represents payments made under the terms of the lease purchase agreement providing for annual payments of \$9,000.

Insurance coverage consists of \$514,000 fireand-extended coverage on the new bakery and \$320,000 fire-and-extended coverage on the Maple Street bakery. Use-and-occupancy coverage totals \$600,000. On May 31, 1959, the corporation carried life insurance of \$100,000 on William Grove. No bonus, retirement, or pension plans are in effect.

Tot

Tot

MURRAY'S BAKERY

Comparative Balance Sheets, May 31, 1958 and May 31, 1959

Assets	1958	1959			
Current assets	¢ 0.100	\$ 31,800			
Cash	\$ 2,180 24,920	62,610			
Accounts receivable (trade) Accounts receivable (employees)	1,810	3,440			
Drivers' contracts receivable (current portion)	11,000	8,870			
Refund claim receivable (federal tax)	12,740	none			
Inventory (lower of cost or market)	96,280	94,030			
Prepaid expenses	11,200	4,260			
Total current assets	\$160,130	\$205,010			
Other assets					
Cash surrender value of life insurance	none	9,750			
Drivers' contracts receivable	6,810	6,120			
Building escrow fund	9,410	19,150			
Total other assets	\$ 16,220	\$ 35,020			
Fixed assets					
Land, buildings, equipment, and					
leasehold improvements	699,280	732,460			
Less accumulated depreciation	122,870	177,350			
Net fixed assets	\$576,410	\$555,110			
Total assets	\$752,760	\$705 140			
Total assets	\$152,100	\$795,140			
Liabilities and Stockholders' Equity	1958	1959			
Current liabilities					
Notes payable (equipment)	\$ 56,300	\$ 49,230			
Mortgage payable (current portion)	9,110	9,110			
Accounts payable (trade)	104,020	113,300			
Employee withholding	6,360	7,380			
Accrued expenses					
Payroll and other taxes	11,240	13,830			
Wages payable	2,700	3,350			
Interest and insurance	9,380	7,620			
Total accrued expenses	\$ 23,320	\$24,800			
Federal income tax payable	3,480	25,000			
Sundry accounts payable	140	8,950			
Total current liabilities	\$202,730	\$237,770			
Long-term liabilities					
Notes payable (equipment)	95,570	69,600			
Notes payable (officer—due 2/28/62)	65,000	65,000			
Mortgage loan payable (noncurrent portion)	23,700	16,130			
Total long-term liabilities	\$184,270	\$150,730			
Total liabilities	\$387,000	\$388,500			
Stockholders' equity					
Common stock (issued and outstanding, 1958,					
82,519 shares; 1959, 83,932 shares)	\$317,600	\$324,660			
Retained earnings	48,160	81,980			
Total stockholders' equity	\$365,760	\$406,640			
Total liabilities and stockholders' equity	\$752,760	4100,010			

MURRAY'S BAKERY Financial Ratios for Years Ended May 31

	1956	1957	1958	1959	Baked Goods*						
Current assets to current debt	0.91%	0.59%	0.79%	0.86%	1.89%						
Quick assets to current debt	0.21	0.23	0.26	0.45	1.24						
Net profits on net sales	2.82	2.44	Loss	1.71	2.01						
Net profits on average net worth	16.43	13.80	Loss	8.76	9.49						
Net profits on average net working capital	(nega	(negative net working capital) 33.64									
Net sales to average net working capital	0.91% 0.59% 0.79% 0.86% 0.21 0.23 0.26 0.45 2.82 2.44 Loss 1.71 16.43 13.80 Loss 8.76 (negative net working capital) (negative net working capital) 17.30 18.60 18.50 20.80 3.25 2.51 2.20 2.56		18.60								
Net sales to average inventory	17.30	18.60	18.50	20.80	25.50						
Net sales to average total assets	3.25	2.51	2.20	2.56	3.17						
Total debt to net worth	0.74	1.71	1.06	0.96	57.90						
Book value per share	\$4.03†	\$4.63	\$4.43	\$4.84	****						

^{*}Roy A. Foulke, "1957 Median Ratio for Baked Goods (Wholesale)," Current Trends in Terms of Sale (New York: Dun & Bradstreet, Inc., 1959), pp. 54-55. The ratios are based on data from forty-nine bakery firms. †Adjusted for 60 for 1 stock split in May, 1957.

MURRAY'S BAKERY Comparative Statements of Operations for Years Ended May 31

1956		1957		1958		1959	
\$1,300,090		\$1,300,090 \$1,470,790 845,230 923,110 157,370 196,780 87,400 95,680 \$1,090,000 \$1,215,570		\$1,652,150 974,040 226,790 159,420 \$1,360,250		\$1,981,750 1,164,090 255,780 182,720 \$1,602,590	
845,230 157,370 87,400							
\$	210,090	\$	255,220	\$	291,900	\$	379,160
\$	111,240 42,410 153,650	\$	145,060 65,600 210,660	\$	247,160 77,840 325,000	\$	250,450 80,500 330,950
\$	56,440	\$	44,560	\$	(33,100)	\$	48,210
\$	4,390 2,670 1,500	\$	6,240 1,320 11,280	\$	5,340 550 none	\$	3,780 3,980 2,850
\$	8,560	\$	18,840	\$	5,890	\$	10,610
\$	65,000	\$	63,400	\$	(27,210)	\$	58,820
	none	\$	1,520	\$	2,240		none
\$	65,000 28,300	\$	61,880 26,060	\$	(29,450) (12,740)	\$	58,820 25,000
\$	36,700	\$	35,820	\$	(16,710)	\$	33,820
	\$1 \$ \$ \$ \$ \$ \$ \$ \$	\$1,300,090 845,230 157,370 87,400 \$1,090,000 \$ 210,090 \$ 111,240 42,410 \$ 153,650 \$ 56,440 \$ 4,390 2,670 1,500 \$ 8,560 \$ 65,000 none \$ 65,000 28,300	\$1,300,090 \$1 845,230 157,370 87,400 \$1,090,000 \$1 \$ 210,090 \$ \$ 111,240 42,410 \$ 153,650 \$ \$ 56,440 \$ \$ 4,390 2,670 1,500 \$ 8,560 \$ \$ 65,000 \$ none \$ \$ 65,000 \$ 28,300	\$1,300,090 \$1,470,790 845,230 923,110 157,370 196,780 87,400 95,680 \$1,090,000 \$1,215,570 \$ 210,090 \$ 255,220 \$ 111,240 \$ 145,060 42,410 65,600 \$ 153,650 \$ 210,660 \$ 56,440 \$ 44,560 \$ 4,390 \$ 6,240 2,670 1,320 1,500 \$ 11,280 \$ 8,560 \$ 18,840 \$ 65,000 \$ 63,400 none \$ 1,520 \$ 65,000 \$ 61,880 28,300 26,060	\$1,300,090 \$1,470,790 \$1 845,230 923,110 157,370 196,780 87,400 95,680 \$1,090,000 \$1,215,570 \$1 \$ 210,090 \$ 255,220 \$ \$ 111,240 \$ 145,060 \$ 42,410 65,600 \$ 153,650 \$ 210,660 \$ \$ 56,440 \$ 44,560 \$ \$ 4,390 \$ 6,240 \$ 2,670 1,320 1,280 \$ 8,560 \$ 18,840 \$ \$ 65,000 \$ 63,400 \$ none \$ 1,520 \$ \$ 65,000 \$ 61,880 \$ 28,300 26,060	\$1,300,090 \$1,470,790 \$1,652,150 845,230 923,110 974,040 157,370 196,780 226,790 87,400 95,680 159,420 \$1,090,000 \$1,215,570 \$1,360,250 \$ 210,090 \$ 255,220 \$ 291,900 \$ 111,240 \$145,060 \$247,160 77,840 \$ 153,650 \$210,660 \$325,000 \$ 56,440 \$44,560 \$(33,100) \$ 4,390 \$6,240 \$5,340 2,670 1,320 550 1,500 11,280 none \$ 8,560 \$18,840 \$5,890 \$ 65,000 \$63,400 \$(27,210) none \$1,520 \$2,240 \$ 65,000 \$61,880 \$(29,450) 28,300 26,060 (12,740)	\$1,300,090 \$1,470,790 \$1,652,150 \$1 845,230 923,110 974,040 1 157,370 196,780 226,790 87,400 95,680 159,420 \$1,090,000 \$1,215,570 \$1,360,250 \$1 \$ 210,090 \$ 255,220 \$ 291,900 \$ \$ 111,240 \$145,060 \$247,160 \$42,410 65,600 77,840 \$325,000 \$\$ \$ 56,440 \$44,560 \$325,000 \$\$ \$ 4,390 \$6,240 \$5,340 \$2,670 1,320 550 1,500 \$11,280 none \$\$ \$ 8,560 \$18,840 \$5,890 \$\$ \$ 65,000 \$63,400 \$(27,210) \$ none \$\$1,520 \$2,240 \$ 65,000 \$61,880 \$(29,450) \$\$ 28,300 26,060 (12,740)

in he H

ab

The short imposite with

Budgeting

Budgets are projected two months ahead, and Grove goes over the actual monthly results and compares these with his budgets. His C.P.A. firm assists him in interpretation of results and in discovering reasons for deviations from budgeted figures. He then goes over the comparisons with appropriate company personnel.

The Dividend Problem

The company has never paid a dividend on its stock. Since William and Edith Grove personally sold most of the public stock issue to local investors, they feel considerable responsibility in this regard. Knowing many of the stockholders personally, Grove feels that many of them would like to see a dividend paid during the current fiscal year. Aware that widespread stockholder unrest can create real problems for any company with respect to current and future operations, he would like to pay a dividend; some of his advisers have counseled against any current payment, however.

OTHER CONSIDERATIONS

Grove feels that he has been fairly successful in developing Murray's Bakery but states that he would have benefited from better planning. He is convinced that the experience he has gained has been invaluable in terms of future operations. As an example, he cites his participation in the stock issue: "I was forced to learn about financial statements and how to use financial data to help the business."

Planning for the Future

The bakery president believes that planning should be based upon two major goals: (1) improved efficiency in production, possibly with new product lines; (2) a greatly expanded sales program, possibly with different channels of distribution.

To improve production, Grove has recognized that the Maple Street plant cannot be made as efficient as the newer plant without alterations that are prohibitively expensive and also that certain lines produced in the newer plant are unlikely to prove profitable. He therefore proposes to transfer all sweetgoods production to the new plant. "When our finances are in good order," he says, "I want to raise \$125,000 for an addition to the Hickory Street building and move the Maple Street operation out here. This will leave us with the Maple Street building worth at least \$100,000. It is rather unlikely that we can lease or sell this building at its value. I have been investigating the possibilities of a potato-chip operation to utilize the building. A look at the map shows that this city could be a good location for a new potato-chip operation. Such an operation should not require a prohibitively heavy investment in machinery."

Grove has been watching the development of chains of small doughnut-and-coffee shops in the eastern part of the country and recently spent some time observing the operation of such a shop. He feels that a carefully developed chain of shops, located in spots that could be reached economically two or three times a week by company trucks, might prove highly successful in expanding sales. The company has developed a dry mix that produces doughnuts of the same quality as that obtained in plant production; this mix would solve the freshness problem for doughnuts.

In one plan under consideration, the company would develop an experimental coffee-sandwich-doughnut shop at the Hickory Street location. If it proved profitable, the company might interest independent operators in investing in individual shops. "A collection of such shops," Grove comments, "could sell a lot of doughnuts."

Two analyses of this case, one by a businessman and the other by a professor, appear on the following pages. FROM A modest beginning with a small local retail bakery, Grove has expanded his business substantially. His products have gained acceptance in a highly competitive field; markets have been broadened and sales have grown consistently each year. With the exception of fiscal 1958 when some extraordinary expenses were incurred, the business has been profitably managed. The company is not faced with any immediate crises. Cash generated through net profit and depreciation is sufficient to meet current maturities of long-term debt. Dividends can be postponed. Working capital is not adequate, as evidenced by loss of discounts, but should gradually improve with restraint on fixed asset expenditures.

The management has not, however, produced the net profits that should have been realized from increased sales. There is actually a downward trend in profits, and this trend should be of vital concern to the management. Inadequate profits will prove a source of embarrassment since there are now local outside stockholders; of equal importance is the fact that increased profits are needed to improve the company's financial position. At the 1959 profit level, three or even two years of comparable earnings would result in substantial financial progress, but neither the trend in profits nor management's thinking about the future lends confidence that this progress will be achieved.

THE PROBLEMS

The company's present situation is the result of a premature, overly ambitious expansion of plant and equipment, and of product and marketing policies. Past planning has not properly related plant needs to products and sales. The problem, therefore, is one of future improve-

Mr. Funk is Vice-President of the Indiana National Bank

of Indianapolis.

ment in operating results. Although Grove "was forced to learn about financial statements and how to use financial data to help the business," the evidence does not indicate that he fully appreciates the causes of the company's present condition. Although he speaks of improved production efficiency and expanded sales, one does not feel that he appreciates the interrelationship of the two. His proposed programs are not only financially impractical, but also would not result in the desired improvement in operating results.

Plant Expansion

Overexpansion of plant and equipment has resulted in a debt-heavy financial condition. The debt servicing, insurance costs, and lease payments have adversely affected the narrow and declining net-profits margin. The heavy cash drain in amortizing the debt will continue to restrict the company's resources. This excess of plant also has increased production costs through depreciation, supervision, and maintenance. As a matter of policy, the company regularly makes various products in several varieties. In addition, goods are produced only against orders so that the company is, in effect, in the custom-baking business. The result is relatively short, high-cost production runs of some items that preclude the use of automatic machines. This has been reflected in increasing labor costs. Although the company has achieved a substantial increase in total sales, increased labor costs and other production costs have prevented an increase in gross profit commensurate with the increase in volume.

ge

ac

Ot

OV

ere fur

the

of]

per

Marketing Policies

The company's basic plan was to reach the consuming public through independent route salesmen who would sell and deliver the prod-

ucts to grocers, restaurants, schools, and so forth. Two-thirds of the company's sales are made through that channel. In addition, the company has increased its own direct retail effort, and about 14 per cent of its sales are made through the company stores. Even though sales have increased, the effectiveness of this effort is questionable when one considers the fact that the company is selling in a compact, relatively prosperous area including several populous markets. It has had little success in reaching the many consumers trading at supermarket chain stores.

Selling expenses have increased significantly both in dollars and in relation to sales. Since advertising has remained fairly stable, with the exception of 1958, the increase in these costs must have come from the operation of the branch stations and retail stores.

With a gross margin of at least 20 per cent on sales, the four retail stores contribute approximately \$60,000 in gross profit. Although details are not available, it can be reasonably assumed that this is a profitable operation. The 16 per cent sales to the private-label business can also be assumed to be profitable. With a gross margin of at least 20 per cent (without route-man discount), this business must be contributing at least \$60,000 in gross profit, and there are less delivery cost and other selling expenses involved.

We can conclude that the company has not sufficiently penetrated its present market and that the independent route-salesmen are not generating the volume of sales necessary to adequately compensate for the selling costs involved.

Other Costs

General and administrative costs have doubled over the past four years on a 50 per cent increase in sales. The company cannot afford any further additions to the administrative staff at the present time although the recent addition of Price, with his accounting and analytical experience, should prove to be justified.

The Plant

To relieve the company of some overhead and other financial burdens, steps should be taken immediately to dispose of one of the two plants. Since the Hickory Street plant is more efficient, it would seem logical to retain it. The funds that would be required to achieve comparable efficiency in the older plant on Maple Street are unavailable. In addition, the Hickory Street plant is leased, and significant funds would not be realized from its disposal. The other property, however, is owned by the company (subject to a \$25,000 mortgage). The sale of this property would free funds for use at the remaining plant if a realistic analysis showed justification for expansion there. If sale is impractical, it should be leased. Even modest lease payments for the size of the building would cover mortgage amortization and other costs, thereby relieving the company of these financial burdens.

Production

Before making a substantial investment in the newer plant, consideration should be given to (1) removal of one doughnut production line (effective capacity could be maintained by reducing the varieties now offered regularly); (2) discontinuance of those production lines in the Hickory Street plant that are unlikely to prove profitable. These two steps could possibly free sufficient space for the production of those lines being produced at the older plant.

Some attention must be given to the production runs. Grove's initial program was to develop a high-volume wholesale baking operation and the company was equipped for this. Volume alone, however, cannot produce the desired results; also necessary are long production runs of individual products. Long runs and high total volume would justify the use of automatic, labor-saving machinery and result in optimum use of plant and equipment. Reduction of the varieties offered daily and increased sales of these individual products

would help the company achieve this increased efficiency.

Marketing

An attempt should be made to expand the private-label business. This offers the immediate possibility of greater production efficiencies and wider profit margins. In addition, close analysis should be made of that market now covered by independent route-salesmen; it may be possible to increase sales on each route or to expand routes into new territories without increasing the number of branch stations. To get the greatest benefits from advertising and other selling costs, it would seem that expansion of business on the present routes would offer the best profit possibilities.

A particularly close analysis should be made of selling expenses, present markup policies, and stale-goods allowances.

Lastly, Grove should temper his future planning. New product lines would only compound present production problems. Entry into the potato-chip business would require some investment, but more important, it would require a time-consuming and highly expensive promotional effort. The populous markets that he mentions as being competitive are the very ones that he would need to give him a volume of sales.

ALL TOLD, the company is still a good business risk. It has developed good products and a reputable name. It is operating in a sound and growing market in which sales could be expanded. Contraction of some production lines and concentration on the sale of basic, fastermoving items could result in production efficiencies and the profits that the company is seeking.

Comments by Fremont A. Shull, Jr.

THE HISTORY of Murray's Bakery is, in the main, the personal success story of William Grove. His perseverance and efforts, together with certain fortuituous circumstances, seem to have offset some lack of planning and organizing as well as certain blunders and perhaps some carelessness. By offering a high-quality product and good service, the company has shown a steady increase in sales. Now, however, it faces the dilemma of whether to merely increase the efficiency of a one-man show or to continue expansion in a long leap that would require a full-blown organization.

THE PROBLEMS

The problem area relates to both a dissatisfaction with the current state of affairs and the

Mr. Shull is Assistant Professor of Management, School of Business, Indiana University.

absence of basic objectives and policies to direct the company's long-run operations and strategies. Since long-run objectives limit current actions and since current conditions influence long-run accomplishments, our analyses require working both forward (from the present state of affairs toward desired future conditions) and backward (from the long-run ideal to current conditions). To encompass fully the problem area, answers are needed to four questions:

- 1 What should be the long-run objectives of Murray's Bakery?
- 2 What basic strategies and actions are required to meet these goals?
- 3 What general preparations must be made in finance, personnel, organization, and physical facilities?
- 4 What immediate adjustments are needed in current operations?

pa les cil Th

si

er

la

or

at

pr

SO

Ba cili thi do

PROJECTED OBJECTIVES

Before proposing any long-run objectives, it is necessary to examine the current status of this bakery in terms of the images that the company has created for the different publics. With the exception of the distributors and consuming market, essential groups may well hold an unfavorable image of the company: for example, the local bankers and the company's stockholders. The current and potential labor forces may also be critical of the company because of nonexistent or weak personnel practices and policies. Such unfavorable reflections upon the company should be considered in future programming.

Although continued growth is not the only alternative available to a business—nor necessarily the wisest choice—current conditions in the industry indicate that growth may be essential to long-run survival. Moreover, production efficiency dictates an increase in sales volume for this company. If future analyses do not disclose that increases in selling costs more than offset lower production costs or that an unfavorable company image precludes growth, further efforts to expand sales should be made.

MARKETING STRATEGIES

Increases in volume can take one or a combination of the following forms: (1) more intensive cultivation of the current market for present product or products; (2) geographic enlargement of the market for existing product or products; (3) product diversification as an attempt to utilize existing facilities; and (4) product diversification intended to offset seasonality of demand.

With perishable products, geographic expansion of the market is somewhat limited unless a company decentralizes its production facilities or adds to its transportation facilities. The current financial position of Murray's Bakery is such that it cannot add to these facilities at this time. There is one exception to this generalization: Broader distribution of the doughnut mix is not limited by perishability.

The need for product diversification intended to offset seasonality of demand is not great. Should the marketing of potato chips be feasible, such sales may be relatively heavy and thus offset the drain on finances during the summer months. The nature of current facilities may preclude any widespread product diversification (into candies, for example) without additional equipment; and, as mentioned previously, major expenditures are not practicable at this time.

Long-run marketing strategies, however, should not be bound by existing facilities. Current equipment should be considered as a sunken cost and, even though some of it is unsuitable, should place no restrictions on the long-range plans-past errors should not be compounded. Nonetheless, there are economies of scale associated with greater utilization of current facilities. From 1958 to 1959, after the move into the Hickory Street plant, sales increased by approximately 20 per cent while labor costs increased by less than 13 per cent and other production costs by less than 15 per cent. Accordingly, gross profit on sales increased by 23 per cent, which would indicate some general economies of scale, assuming that prices remained constant during this period. As a further indication that utilization of current assets is poor, the ratio of net sales to average total assets is only 2.56 as compared to the industry average of 3.17. All of this indicates the desirability of increased utilization of existing plant and equipment, especially at the new location.

It is somewhat uneconomical to maintain the Maple Street plant, particularly if the other plant has excess capacity. The problem is how to obtain a fair sales price for the older facilities if the new plant has the capacity to meet long-run requirements. Perhaps this can be done by creating a value for these facilities through the development of a market for the goods produced in the old plant. This seems to be possible, especially since potato-chip machinery is not too costly. The question then becomes whether or not present managerial capacity and marketing know-how are sufficient

to exploit this possibility. Questions concerning the establishment of doughnut-and-coffee shops also relate to the availability of managerial and marketing capabilities and time. The operation of coffee shops is often highly competitive and can prove to be very unprofitable. On the other hand, these characteristics typify the baking industry; thus, the fortitude and drive of Murray's current management may be able to operate in a limited fashion on this front.

SPECIFIC PROPOSALS

It is doubtful if the company can borrow any large sums of money; therefore, it must find other solutions to its financial problems. The company can either pull itself up by its own bootstraps or sell stock. Because of the lack of past dividends and the poor current financial position, the sale of stock probably involves giving up too many inducements and too much control to make it advisable at the present time.

It appears, then, that short-run increases in capital must come from earnings. The company can, through the following practices and policies, improve its position and better utilize its production capacity. More accurate and more complete planning is required, especially concerning its future financial position. There is, for example, no excuse for not taking advantage of cash discounts. This failure stems largely from the inability to maintain adequate working capital, probably resulting from the absence of a cash budget. The total-debt-to-net-worth percentage is nearly 50 per cent, which may well indicate merely expedient actions rather than foresight and thought. The lack of good planning and control is also indicated by the relatively low sales-to-inventory ratio-slightly over 21 as compared to 26 for the industry.

Increased attention to man-power planning is also indicated. It appears unlikely that William Grove can be president, controller, and production manager for a still larger business unless he wants to work twenty-four hours a day. Managerial recruitment and development are required. In addition, attention should be given to improved personnel practices and policies with a specific allocation of responsibility for this function.

Additional information about the current marketing situation and its potential must be obtained. In this respect, the following questions require answers:

- I In the development of customer demand, what is the relative role of quality, price, and advertising? For example, does the customer pay for high quality?
- 2 What are the opportunities for developing the private-brand markets?
- 3 What new means for tapping the market are available? What are the advantages of vending machines, and what is the possibility of the company's operating its own vending machines in order to maintain control of quality?
- 4 What are the potentialities of advertising in newspapers or on television?

In conclusion, several major suggestions can be offered. Murray's Bakery should "make haste slowly" toward increased sales volume largely in the existing geographic market. This would appear to necessitate cultivation of a mass market. Better utilization of current production facilities is essential. The company needs a better planned and better organized approach, with long-run objectives giving direction to the total effort.

Market strategies should be based upon more complete facts; additional controls should be established to reduce deviations from planned activities and to reduce losses through carelessness. The company must improve its immediate financial position by following the practices of good financial administration. Finally, these additional responsibilities require increased attention to man-power planning, recruitment, and training.

th

S

M

Creeping Inflation causes and consequences

THE domestic economic policy of the United States during the past five years has been dominated by the fear of inflation. Concern about gradually rising prices has perhaps been the most important single factor, not only in determining monetary policy, but also in restraining the magnitude of governmental expenditures for defense, school construction, natural resources development, and indeed for almost the entire range of government programs except road-building. While the general price indexes have been relatively stable in recent months, and unemployment has been hovering about the 5 per cent mark, the federal budget for fiscal 1961 and the monetary policies of the Federal Reserve System are clearly premised on the belief that

Mr. Schultze is Lecturer in Economics, Indiana University.

continued restraint of aggregate spending is called for by the existence of underlying inflationary forces.

"DEMAND-PULL" THEORIES

The object of monetary and budget restraints is to limit the growth of aggregate expenditures in the economy. To the extent that a general rise in the price level stems from an excessive growth in total expenditures relative to the economy's output capacity, such restrictions, insofar as they remove the excess growth in expenditures, can control the price increases without at the same time reducing output and employment.

Traditional economic theory recognizes such an excess of total spending as the prime, indeed as the only, cause of inflation. If, in spite of monetary and budget restraints, prices continue to rise, this simply demonstrates that the restraints are not severe enough to accomplish their object. Central bankers throughout the world may generally be counted on to hold this traditional view of the inflationary process. Their discussions of inflation tend to inveigh heavily against "profligacy," "excesses," and "overspending"; public virtue is equated with a "sound" currency, and policy proposals are couched in terms of stern warnings against the immorality of nations' trying to spend more than they produce.

"COST-PUSH" THEORIES

A competing explanation of recent creeping inflation is the "cost-push" hypothesis. It maintains that inflation can and does arise in the absence of excess total spending. The most common version of this new inflation thesis attributes general price increases to autonomous upward advances in wage rates, mainly in union-organized industries. This particular variant of the cost-push hypothesis has been adopted by many business organizations and by individual businessmen in their speeches and other public statements. (Several of the annual economic reports of the president have also gingerly blamed at least a part of the recent inflation on the propensity of unions to raise wages faster than productivity during periods of labor surplus.)

The concept of cost-push inflation not only fits in with the over-all philosophy of most business organizations, but it confirms the experience of many a businessman who first sees inflation when he confronts it in the form of higher costs. Even if these higher costs result from an excess demand for labor arising out of excess total spending in the economy, the time sequence of the businessman's own experience makes a cost-push theory seem eminently reasonable.

Not surprisingly, a rival version of the costpush theory has been adopted by union leaders and by many spokesmen for the liberal left —the villain of the piece is not organized labor but the market power of big business. Advances in "administered" prices, justified by neither increases in demand nor increases in costs, have been the initiating and sustaining factor in the price-wage spiral.

POLICY IMPLICATIONS

Both variants of the cost-push theory lead to a common conclusion. Since wages and prices tend to be set in partial independence of the state of the market, moderate monetary and fiscal restraints cannot halt inflation. Rather, by restricting the level of monetary expenditures in the face of independently rising prices and wages, such restraints lead to unemployment and idle industrial capacity.

"Thus, supposing the existence of independent power, insensitive to ordinary economic pressures, to force up the employment cost level, then resort to tight money results not so much in checking cost-price increases as in squeezing them against the unavailability of added money supplies to finance them. The tight money may then find its unintended expression in unacceptable reduction in the nation's production and employment." ¹

Here again, two schools of thought may be discerned. The first believes that it would be disastrous for the government to validate the rising prices and wages. Monetary and fiscal restraints are called for even if they do lead to greater unemployment and excess capacity. Somewhat in the spirit of a parental "this hurts me more than it does you," advocates of an austere monetary policy would chastise "antisocial" price and wage behavior-first in the hope of limiting the extent of the current misbehavior, and second in the belief that continued punishment would eventually inculcate more socially desirable behavior on the part of the wayward unions (or monopolies, as the case may be).

in

th

es

pi

se

la

lal

se

do

ac

ex

Wi

ris

on

The other school of thought, more generally associated with the liberal left, places much greater priority on full employment and rapid economic growth than on absolute price stability. Such critics of current monetary and

¹ U.S. Steel Corporation, Annual Report, 1959 (Pittsburgh and New York: 1960), p. 25.

fiscal policies feel that, since the basic cause of the inflation is not excess spending, a relaxation of current restrictive policies would result in little additional price increase but would achieve significant gains in real output. Many of them would further advocate various forms of mild wage and price controls as a final resort. In any event, they would not sacrifice a higher level or rate of growth in national output in an attempt to stabilize a slowly rising price level.

ALTERNATIVE HYPOTHESIS

A careful analysis of recent inflationary processes is a prerequisite to the formulation of monetary and fiscal policy. Even those who are not particularly concerned about the failure to contain a slowly rising price level are vitally interested in achieving other economic goals. And the use of general monetary and fiscal policies for anti-inflationary purposes will have widely different implications for the attainment of such goals as full employment and rapid economic growth, depending upon what one assumes to be the particular nature of the inflationary process.

Price and Wage Rigidities

A detailed examination of the economy during the past five years appears to indicate that neither of the two prevalent theories of the inflationary process can satisfactorily explain the events of that period. Boiled down to its essentials, the debate between the demandpull and cost-push theorists centers on the sensitivity of price and wage decision-making to the state of the market for goods and for labor. If prices and wages are flexible in response to changes in the demand for goods and labor, then inflation cannot proceed in the absence of excessively rising total demand. This does not mean that cost increases would not accompany inflation. Rather, the demand-pull explanation implies that costs would not rise without the prior and continuing stimulus of rising demands for factors of production. If, on the other hand, price and wage decisions are not closely tied to the state of the market, the general price level can increase despite the absence of an excessive growth in the over-ail demand for goods and labor.

No one would deny, of course, that there is some level of unemployment and excess capacity that would halt the advance in wages and prices. But the central contention of the cost-push theorists is that wage and price decisions in an economy operating at or close to full employment are not sufficiently influenced by *moderate* changes in market conditions.

In fact, however, wages and prices in the modern American economy cannot be characterized simply by whether or not they are sensitive or insensitive to the state of market demand. One of the major features of prices and wages is that they are substantially more sensitive to increases in demand than they are to decreases. Price competition and downward price flexibility are still significant characteristics of some important areas of the economy—agricultural products and many other crude materials being the major examples. But in a very large part of the economy, prices are "sticky"; they do not decline readily in the face of growing excess capacity.

The reasons for this downward rigidity are manifold. To some extent, rigidity is due to the market power exercised by the small number of giant firms that dominate many American industries. In part, it is a natural consequence of the fact that pricing decisions are made in an atmosphere of uncertainty about the future.² Once we abandon the textbook world in which business firms, with known or certainly expected cost and revenue curves, continually price to maximize short-run profits, we must recognize that the maintenance of prices during periods of excess capacity is not an irrational act.

There is a large and growing body of economic literature that discusses the problem of downward price rigidity and the propensity of firms to pay more attention to costs than to

² See William Fellner, "Average-Cost Pricing and the Theory of Uncertainty," *Journal of Political Economy*, LVI (June, 1948), 249 ff.

demand, particularly in a situation of declining demand. It is not the purpose of this essay to summarize that literature. Let us rather note the fact as a matter of common experience and analyze its consequences.

Downward rigidity is even stronger in the case of wage rates. During all of the years between 1900 and 1960, there were only five in which the average of manufacturing wage rates was lower than in the preceding year. If, as a guide, we set 4 per cent unemployment as a rough but convenient division, with higher unemployment ratios denoting labor surplus and lower ratios labor scarcity, and if we specify 2½ per cent as the average annual wage increase consistent with stable unit labor costs (2½ per cent is the average annual gain in productivity), we find that of the thirty-four years in which wage increases were greater than 2½ per cent, seventeen were years of labor surplus and seventeen were years of labor scarcity. In no case did wage rates decline when unemployment was less than 7 per cent of the labor force. And in all of the years in which wages did decline, consumer prices were also substantially lower than in the preceding year. Conversely, there were ten years in which wages rose while unemployment was above 6 per cent. The downward rigidity of wage rates in the face of declining demand for labor is not, therefore, a new phenomenon, nor is it traceable solely to the existence of organized labor. Whatever one's belief with respect to the power of unions to raise wages, however, there is little doubt that they have strengthened the already existing floor under wage rates.

If prices and wages are relatively insensitive to declines in demand but do respond to increases in demand, then a rise in the general price level can occur in the absence of either an over-all excess of demand or an autonomous upward push of wages. In any situation characterized by a marked shift in the composition of demands, prices and wages will tend to rise in the sectors experiencing increased demands and will not fall, or certainly not by a corresponding amount, in the sectors facing declining demands. As a consequence, the average

level of prices will rise. The process of resource allocation, in other words, does not simply realign the relative position of individual prices and wages. Rather, in a world in which prices and wages are sticky downward, attempts to effect a rapid change in the allocation of resources tend to raise the whole price level.

The Spread of Cost Increases

The inflationary consequences of a substantial shift in the composition of demands is not confined merely to this averaging process. Rapidly rising demands for the products of particular industries transmit their impact to the rest of the economy through their influence on the prices of materials and the wages of labor. Crude material prices are normally quite flexible and are unlikely to increase significantly in the absence of an over-all increase in demand. Prices of intermediate materials, supplies, and components, however, are predominantly more cost-determined and fairly rigid downward. Prices of those materials chiefly consumed by industries with rapidly rising demands advance, since a sharp increase in the demand for the final product will usually (though not inevitably) imply a rise in the demand for specialized materials. On the other hand, prices of materials and supplies chiefly consumed by industries with declining demands do not fall unless the demand deficiency is very large. Industries that use both types of materials confront an increase in the composite cost of their raw materials, even though such industries are not themselves experiencing increases in demand.

An even more important mechanism by which cost increases are propagated throughout the economy is the spread of wage, salary, and other cost increases from industries with rising demand and high profits to industries with declining demand and falling profits. As prices and production rise in some sectors of the economy, profits in those sectors tend to advance sharply. The rising profits generate higher costs. Unions have an increasingly lush target at which to aim, and management more of a tendency to pay what the unions want rather than suffer the consequences during a

W

Ce

SI

ar

fir

m

in

Gro

Prir

Join

particularly profitable period.³ Perhaps equally as important, the fear of potential new rivals, attracted by the higher profits, often induces firms to utilize a part of their increasing profits for upgrading products, for elaborate research and development projects, for stepped-up advertising campaigns, *et hoc genus omne*.

The cost increases in industries with growing production and profits filter out through the rest of the economy. The pressure on specialized engineering and scientific resources is felt in all of industry. The nonprice competition initiated by increased research and development and by product upgrading in highprofit industries forces firms in other industries to incur at least some of the same cost outlays. Moreover, firms in industries with stable or declining demand find themselves having to pay wage increases, even though their demand for labor is not rising. It is not that they fear an immediate loss of their work force if wage increases are not granted-indeed, we have postulated a situation in which there is no over-all shortage of labor. However, firms faced with periodic fluctuations in the demand for their product cannot afford to acquire the reputation of being low-wage firms-otherwise they might sacrifice easy access to the labor market during periods of rising demand. Further, an increasingly unfavorable wage differential is a marvelously effective way in which to insure declining labor efficiency.

Industries in which there is substantial concentration of market power in the hands of a small number of firms are more likely to be subject to the spread of cost increases than are competitive industries. This is so because firms with significant market power are much more likely to pass along a large part of the increased costs in the form of higher prices.

For all of these reasons, the pattern of wage increases set in the rapidly expanding industries is likely to spread, in a modified fashion to be sure, throughout the rest of the economy. During the 1955 to 1957 boom, for example, the average wage increase in the five most rapidly expanding manufacturing industries was 9½ per cent. The average increase in the five least rapidly expanding industries was 9 per cent. Yet output expanded by an average of 12 per cent, and production-worker employment by 2 per cent in the former group of industries; while output and employment declined by 6 and 9 per cent respectively in the latter group. The same tendency for wage increases in slowly expanding industries to match those in rapidly expanding industries has also been noted in most of the countries of Western Europe.4

Effects of Market Structure

The tendency for rising profits in oligopolistic firms to be dissipated in rising wage rates, even when the demand for labor is not excessive, has been strikingly illustrated in a recent study by Harold Levinson published by the Joint Economic Committee of the U.S. Congress.⁵ Relative changes in wages among the nineteen manufacturing industry groups were studied year by year during the 1947-58 period and related to changes in other economic variables. In no year was there a significant relationship between changes in employment and changes in wage rates. During years of rapidly rising total demand (mainly the years between 1947 and 1951, with the exception of

Hence, they are less prone to "get their backs up" over demands for wage advances and other upward cost tendencies during periods of slack demand than are firms in more competitive industries. A rise in steel wages is much more likely to be imitated in the automobile industry than in the apparel industry, given the same conditions of demand in both cases.

³ Statistical investigations of changes in relative wage rates among different industries have shown that the most important factors explaining differences in wage rate changes have been the degree of concentration in the product market and the rate of profits. See Joint Economic Committee Study on Employment, Growth, and Price Levels, Staff Report on Employment, Growth, and Price Levels, 86th Cong., 1st sess. (Washington: U.S. Gov't Printing Office, 1959), pp. 145-49; also Harold Levinson, Prices and Wages in Manufacturing Industries (Study Paper No. 21 of Joint Economic Committee Study on Employment, Growth, and Price Levels).

⁴ Department of Economic & Social Affairs, World Economic Survey, 1957 (New York: United Nations, 1957), Table 8, p. 37. ⁵ Levinson, Prices and Wages in Manufacturing Industries.

1949), there was no significant relationship between the magnitude of changes in wage rates on the one hand and the level of profits and the degree of market concentration on the other. However, in recession years and in almost all of the years since 1952, there was a significant positive relationship between wage rates and the latter two factors.

Further evidence of the link between market structure and inflation was the finding that, in years of rapidly rising total demand, there was no significant relationship between relative changes in prices and relative changes in unit costs among manufacturing industries, while, during the last five years, the relationship between changes in prices and changes in costs was significant. Conversely, the margins between prices and costs, as reflected in profit ratios, were significantly related to the degree of market concentration during recent years but were not so related during the earlier postwar years in which total monetary demand was rising very rapidly.

"Classical" Inflation

The fact that a shift in the composition of demands can itself generate a rise in the general level of prices does not, of course, explain all inflations. The really major inflations have clearly been the results of an over-all excess of monetary demands. The rise in prices during and immediately after World War II and the largest part of the price advances during the Korean conflict were a response to an excess of aggregate demand. And in such situations, monetary and fiscal actions designed to restrict total demand are appropriate policy measures. But the rise in the price level that began in 1955 and continued through 1958 cannot be explained by a rise in total spending that pressed upon the nation's capacity to produce.

A detailed examination of the 1955-58 period is beyond the scope of this article—a brief summary, however, may indicate the process by which a rise in the general price level can occur quite independently of an over-all excess of demand.

During 1955, the economy recovered swiftly from the recession of 1954. Expenditures and output in all of the major volatile sectors of the economy advanced rapidly. After late 1955, however, a change in the nature of the advance took place. While the demand for business plant and equipment continued to increase at a very rapid pace, housing construction and automobile sales fell sharply from the peaks reached in 1955. Total expenditures on gross national product increased by slightly over 5 per cent per year during the two years from mid-1955 to mid-1957, before the recession set in. Instead of the 3½ to 4 per cent annual growth in real output, which should normally accompany such a rise in expenditures, output rose by only 1½ per cent per year and prices by 3½ per cent. Capacity rose substantially faster than output so that, throughout the period, excess capacity in most industries was rising.

Table 1 shows the changes in the major categories of gross national expenditures during significant subperiods of the postwar years. The fact that some categories of expenditures rise and fall more rapidly than the total is, of course, a familiar phenomenon during recessions and recoveries. But in recent years this divergence of expenditure patterns has led to inflationary pressures.

During the 1955-57 period of slowly rising output and growing excess capacity, industrial wholesale prices rose by about 9 per cent. But the increase was not uniform in all industries. Price rises were generally largest among industries with the largest increases in output, and smallest among industries with the smallest increases in output. However, even in industries with declining output, prices on the average also rose. Price-output relationships in the steel and automobile industries were out of line with those of other industries-prices rose substantially further, relative to output, than the average relationship exhibited by other industries. The capital goods industries experienced a price rise of about 17 per cent

TABLE 1

Rates of Change in Gross National Product and Major Components

(Percentage changes expressed as annual rates)

Period	Gross National Product	Business Fixed Investment *	Residential Construction	National Security	Automobile Purchases†	Other Gross National Product
1Q,1947-4Q,1948	10.1	17.1	32.2	-3.9	22.8	9.1
4Q,1948-4Q,1949	-3.3	-19.7	12.3	7.4	5.0	-4.2
4Q,1949-1Q,1951	19.0	24.8	23.5	69.5	36.8	14.6
1Q,1951-3Q,1952	6.2	3.8	-6.2	62.6	-25.5	3.5
3Q,1952-2Q,1953	8.4	13.3	12.5	9.8	89.0	4.4
2Q,1953-3Q,1954	-1.4	1.0	10.3	-17.4	-19.0	1.2
3Q,1954-3Q,1955	11.4	13.8	19.6	-2.0	63.0	10.4
3Q,1955-2Q,1957	5.5	11.2	-5.8	8.3	-7.4	6.2
2Q,1957-2Q,1958	-1.8	-16.1	0	1.3	-34.0	1.1

^a Purchases of producers' durable equipment (excluding passenger vehicles) and nonresidential construction.

Source: Basic data from u.s. income and output and various issues of survey of current business.

over the two-year period and accounted for most of the output gain. The average price rise for all other industries (excluding steel and automobiles) was about 6 per cent, despite the fact that their combined output declined in the face of growing production capacity. If we include steel and autos among these "other" industries, the average price increase was 8 per cent.

The price-output relationships during this period appear to confirm the hypothesis outlined above. In the capital goods and associated industries, both demands and prices increased rapidly. The rising demands in these areas were balanced by falling demands elsewhere; yet prices did not decline in most industries with falling demand. Indeed, cost increases, stemming at least in part from the rise of demands and profits in the capital goods industries, led to moderate price advances in industries with declining demands and growing excess capacity.

The Rise in Fixed Costs

Another important characteristic of the period was the fact that the greatest part of the rise in costs stemmed not from wage costs but from overhead costs—depreciation and salaries. Throughout the postwar period, there has

been a widespread substitution of white-collar workers for direct production labor. Seventy per cent of the rise in private nonfarm employment during the decade between 1947 and 1957 represented increased employment of overhead-type labor. Between 1955 and 1957, over 80 per cent of the employment rise was in this category. The trend in manufacturing has been even sharper. All of the postwar increase in manufacturing employment has been overhead employment. In fact, between mid-1955 and mid-1957, employment of production workers declined while that of overhead personnel increased. These facts are reflected in Table 2, which presents data on the breakdown of unit costs in manufacturing.

Of the 9.6 per cent point increase in the price of manufacturing output⁶ between 1955 and 1957, 5.6 percentage points were contributed by the rise in salary costs alone. The substitution of salaried overhead labor for hourly rated production labor is, of course, not in itself inflationary. However, such a substitution does tend to raise the proportion of relatively fixed costs in total costs. During the

 $[\]dagger$ Purchases of automobiles by consumers and business, plus the change in inventories of automanufacturers and dealers.

⁶ The "price" of manufacturing output is the average price per unit of manufacturing products minus the cost per unit of raw materials purchased from nonmanufacturing firms. It measures the contribution of the manufacturing sector to the final price of the product.

TABLE 2

Changes in Prices and Cost in Manufacturing Industries

(Changes in percentage points)

Price or Cost Item	1947-57	1955-57
Price of value added: *	39.4	9.6
Unit wage cost	12.9	2.9
Unit salary cost	13.3	5.6
Unit gross margin	10.2	-1.2
Depreciation	(5.2)	(1.0)
Profits and interest	(5.0)	-(2.2)
Unit indirect taxes†	2.9	1.3

The "price of value added" is the price of final products minus the unit cost of materials purchased from nonmanufacturing firms.

t "Indirect" taxes include sales, property, and all other business taxes except those levied on income.

period after late 1955 when producers were expanding plant and equipment rapidly and increasing their staffs of professional, technical, clerical, and similar personnel, the failure of output to rise in the face of these rising fixed-cost outlays led to a sharp increase in unit costs. The evidence suggests that at least a part of the rising fixed costs were passed along via higher prices. Instead of pricing on the basis of cost calculations adjusted to the level of output in anticipation of which the overhead costs were incurred, prices were set on the basis of costs calculated at actual output rates, which fell increasingly short of anticipated output in many industries.

The relationship of costs and prices in manufacturing during the three postwar recessions seems to confirm this finding. Despite falling demand and growing excess capacity, the price of output in manufacturing rose in each recession, although by a smaller amount than unit costs. Most of the increases in costs were accounted for by rising overhead costs per unit, not by rising wage costs. This phenomenon was common to all three recessions; the reason why product prices fell during the 1949 recession and increased in 1954 and 1958 is to be found in the behavior of agricultural

The rising proportion of fixed costs to total costs has resulted in an increased sensitivity of productivity and unit costs to changes in output. During the 1955 to 1957 period, those industries with the largest output gains generally tended to have the largest productivity gains.9 A similar relationship between output gains and productivity gains has also been noted during other periods. Because of this relationship, restraints on aggregate demand that reduce output rather than simply eliminate an excess of demand over capacity may, for certain ranges of output, increase costs rather than reduce them. In other words, under certain circumstances, productivity-decreasing effects of demand restraints may be larger than any accompanying reductions in factor prices.

POLICY IMPLICATIONS

General Monetary and Fiscal Controls

As weapons for combating inflation, general monetary and fiscal controls are supposed to achieve their objective by reducing or moderating the rate of increase in aggregate monetary demand to a level or rate of growth that matches the output potential of the economy. From the standpoint of inflation control, traditional theory tells us that it makes little difference on what sectors of the economy the controls initially impinge. If prices and wages are flexible in both directions, inflation cannot occur without an over-all excess of monetary demand. Hence, even if monetary and fiscal pressure should have a larger impact on one area of the economy than on another, relative prices will shift about, and resources will flow from one industry to another, but over-all stability will be maintained. Further, insofar as

Source: Charles L. Schultze, prices, costs and output for the postwar decade (Committee for Economic Development; Washington: 1960), Table 7.

prices, rather than in sharply different price-cost behavior in the manufacturing sector itself.8

⁷ Charles L. Schultze and Joseph Tryon, Prices and Costs in Manufacturing Industries (Study Paper No. 17 of Joint Economic Committee Study), pp. 46-48.

⁸ Prices and Costs in Manufacturing Industries, p. 47.

⁹ The coefficient of simple correlation between changes in output and changes in productivity for the fifteen manufacturing industry groups for which appropriate data could be matched was 0.71. Charles L. Schultze, Recent Inflation in the United States (Study Paper No. 1 of Joint Economic Committee Study), p. 115. Also Edwin Kuh, Profits, Profit Markups, and Productivity (Study Paper No. 15 of Joint Economic Committee Study).

the differential sensitivity of various sectors to changes in monetary policy does not arise from imperfections in the money and capital markets, there is no "inequity" in the differential impact. This sensitivity merely reflects the fact that certain sectors are unwilling to pay the price for obtaining funds in a capital market that is not swollen by additions to the supply of money.

In the case of fiscal policy, it is admittedly difficult to conceive of changes in expenditures and, more pertinently, in taxes that would be completely neutral in their effects on the economy. Nevertheless, in traditional theory, the principle is still valid; to the extent that it is concerned with restraining inflation, fiscal policy should seek to restrain aggregate demand; differential impacts on various sectors of the economy are regarded as effects to be avoided as much as possible.

"Monetary and fiscal policy must try to stabilize over-all demand. But within this stabilization, the individual parts must be free to fluctuate if resources are to be used and shifted to best advantage." 10

Once we abandon the neoclassical concept of a highly competitive and symmetrically flexible price system busily shuttling resources back and forth, the evaluation of general monetary and fiscal controls must be modified. The institutional facts of life in the modern American economy include: (1) downward rigidity of prices and wages; (2) highly costoriented pricing in many industries; (3) tendency for cost increases to spread out from industries with rapid growth in demand, productivity, and profits to other "less fortunate" industries; and (4) a changing structure of costs in the direction of more fixed costs relative to variable costs.

Under these circumstances, a rapid shift in the composition of demands can lead to a mild advance in the general price level even after excessive total spending has been eliminated. Any attempt to contain such an inflation by reducing total spending still further will lead to unemployment, and possibly a slower long-term rate of growth. General restraints of a moderate nature may have little success in reducing the rate of price increase. This is not to say, of course, that there is no role for general monetary and fiscal policy, any more than the fact that penicillin does not cure migraine headaches implies that penicillin is of no value in treating other types of maladies. But, if it is to be useful rather than harmful, the remedy must be suited to the disease.

Some Alternative Policies

If we grant the fact that the resource allocation process can itself lead to a slow rise in the price level, there are five possible attitudes that might reasonably be adopted.

- 1 Repress aggregate demand by whatever amount is needed to remove the inflation. There is always some level of unemployment and excess capacity sufficiently large to "break" wage and price rigidities. Indeed, the great depressions of the past performed this surgical function. One of the reasons why creeping inflation seems to be a recent phenomenon is that, in the past, massive doses of unemployment broke the "ratchet" under the price level.
- 2 Use monetary and fiscal controls as effectively as possible to eliminate aggregate excess demand. If prices still continue to rise, then adopt the advice of the ancient Oriental sage—"relax and enjoy it." Do not sacrifice full employment for the sake of restraining an inflation that amounts to only a few per cent per year. Moreover, the full utilization of capacity may itself keep productivity growing at its potential, which in turn may lift some of the pressure for cost and price increases.
- 3 Supplement general fiscal and monetary controls with qualitative credit controls and specific tax measures designed to infringe only on sectors with rapidly rising demands. In other words, attempt to moderate the rapid shifts in the composition of demands that are a chief factor in creeping inflation.

¹⁰ Henry Wallich, U.S. Postwar Monetary Policy (The American Assembly; New York: Columbia University, 1958), p. 106. Wallich is summarizing traditional theory and the quotation does not necessarily reflect his own views.

4 Intensify antitrust efforts in an attempt to make prices and wages more sensitive to changes in market conditions. This approach, in contrast to the third approach, would try to bring about in the economy those conditions under which the traditional inflation theory would apply. With prices and wages flexible in a downward as well as an upward direction, only an aggregate excess of demand could lead to inflation.

5 Institute direct wage and price controls. Various proposals have been offered along this line, from the mild suggestion of fact-finding boards to the full panoply of wage and price controls established by the OPA in World War II.

Selective monetary and fiscal controls and stronger doses of antitrust medicine would both represent attempts to reduce the incompatibility between the goals of full employment and price stability.11 Before abandoning the hope of achieving a simultaneous fulfillment of both goals, as alternatives 1 and 2 above imply, or before turning to direct wage and price controls, the possibilities of moderating creeping inflation by other means clearly deserves exploration. The remainder of this article will be devoted to a brief summary of the advantages and disadvantages of selective monetary and fiscal controls in the context of creeping inflation. (The decision to concentrate on an evaluation of these policy weapons arises solely from a lack of space and out of deference to the limited qualifications of the author to discuss the potential effectiveness of antitrust policy. It should not be taken as a judgment against the usefulness of more stringent antitrust policies.)

Selective Credit and Fiscal Controls

No brief summary could hope to do justice to the complex issues raised by selective monetary and fiscal controls. The recent Federal Reserve Board study of consumer credit con-

trols alone ran to five volumes and then reached no firm conclusions.12 Rather, what might prove useful is a consideration of the problem of selective controls in the context of an inflation arising out of shifts in resource allocation. In the past, such controls have usually been discussed either in terms of their impact on aggregate monetary demand13 or in terms of achieving a permanent shift in resource allocation toward a more "desirable" pattern.14 Our discussion of creeping inflation suggests a third criterion for evaluating selective controls—can they prevent the excessively rapid shifts in the composition of demands that lead to inflation, and, if they can, are the results worth the price paid to achieve them?

It was pointed out earlier that the success of general monetary controls in restraining inflation would not depend on the evenness of their impact on the various sectors of the economy, so long as prices and wages were flexible in both directions and resources could be fairly easily transferred from industry to industry. Once we postulate downward rigidity of prices and wages, however, the shift in expenditures occasioned by the uneven impact of monetary controls becomes a matter of concern.

Under such circumstances, even if general monetary restraints impinged evenly on all sectors of the economy, they could not meet the major inflationary problem without holding down the growth in output. If, on the other hand, general monetary controls were systematically uneven in their impact, it would only be a coincidence if they had their main effect on the sectors generating the inflation. ¹⁵

The three major and highly volatile sectors of the economy over which it seems possible to

¹² Board of Governors of the Federal Reserve System, Consumer Credit Control (Washington: U.S. Gov't Printing Office, 1957).

¹³ See, for example, the essay of Milton Friedman, National Bureau of Economic Research, in Conference on Regulation, published as Part II, Vol. II of Consumer Installment Credit (Washington: U.S. Gov't Printing Office, 1957).

¹⁴ For example, consumer credit controls during wartime were conceived of as a device not only to restrain price increases but also to help channel resources into defense industries. In postwar Europe, many nations have used such controls to increase the flow of resources into the investment goods and export industries.

¹⁵ See Staff Report on Employment, Growth, and Price Levels, chap. 9, pp. 362-94, for an excellent summary discussion of the differential impact of monetary controls.

¹¹ Another way of looking at such policies is to conceive of them as an effort to improve the "terms of trade" between unemployment on the one hand and wage and price increases on the other.

exercise some form of selective control, without at the same time venturing into direct governmental regulation of individual spending, are (1) consumer purchases of durable goods (particularly automobiles); (2) residential construction; and (3) business purchases of plant and equipment. During the 1955 to 1957 period, for example, it was the combination of rapidly rising plant and equipment expenditures and declining expenditures on residential construction and automobiles that gave us the phenomenon of a rise in the general price level unaccompanied by excessive aggregate demand.

Installment and Mortgage Credit.-Selective controls over mortgage and consumer installment credit have been used on a number of occasions in the United States. A similar, though modified, influence on housing expenditures is exercised by the FHA and VA mortgage regulations on down payments and maturities. By regulating minimum down payments and maximum maturities on loans, such controls can influence both the magnitude and timing of expenditures on residential construction and consumer durable goods. During periods in which upward pressure on the price level was being exerted by a rapid increase in the demand for one or both of these categories of goods, reduction of maximum allowable maturities and an increase in minimum down payments could be expected to reduce demand pressures without directly reducing the demand for other categories of goods. Indeed, a reduction in the flow of funds used to finance housing and autos should increase the availability of credit to other sectors of the economy. Conversely, during periods of slackening demand for autos and housing, it would be possible, by relaxing selective credit controls, to stimulate expenditures for such goods without weakening the monetary or fiscal restraints applied to the rest of the economy.

Residential construction and consumer installment credit are quite different in terms of their sensitivity to *general* credit controls. Mortgage credit appears to be quite suscep-

tible, after a moderate time lag, to a general tightening of credit. In part, this sensitivity stems from the existence of a maximum nominal interest rate imposed by statute on FHA and VA mortgages.

When the general level of interest rates increases, the ceiling on FHA and VA mortgage rates induces lenders to switch part of their limited supply of funds to more lucrative types of securities. Even without interest ceilings, however, institutional rigidities in the mortgage market would probably make mortgage credit more sensitive to general controls than most other sectors of the economy.16 Because of this sensitivity, residential construction outlays have tended, in recent years at least, to behave in a countercyclical manner, rising during recession and early recovery (easy money) and falling during later prosperity years (tight money). Consumer installment credit on the other hand is less sensitive to general credit controls:

"When bank credit generally becomes less available in the money market, consumer credit because of its close relationship with retail purchases and its excellent performance record may command a larger proportion of the available supply. Moreover, small changes in interest rates in the money market have relatively little effect in the consumer credit area since the cost of money at wholesale is only a small element in the credit charge to consumers at retail." ¹⁷

On the whole, the fairly extensive experience in this country with selective credit controls has been quite satisfactory in terms of administrative feasibility and economic effectiveness. As the official reply of the Board of Governors of the Federal Reserve expressed it (in answer to a Joint Economic Committee questionnaire), "The comparatively favorable

¹⁶ Staff Report on Employment, Growth, and Price Levels, pp. 367-68.

¹⁷ Joint Committee on the Economic Report, Monetary Policy and the Management of the Public Debt, 82d Cong., 2d sess. (Washington: U.S. Gov't Printing Office, 1952), pp. 413-14. It should be noted, however, that in its later study of Consumer Credit Control (1957; Part I, Vol. I, chap. 13), the Board takes a more agnostic view, particularly with respect to the impact of changes in the wholesale cost of credit on the lending policies of consumer lending institutions.

experience of the Federal Reserve System in administering selective regulation in the areas of stock market credit, consumer credit, and real estate credit is unique..." Although the Board, in its 1957 study of consumer credit control, took a more neutral position, there is little in the study to indicate that such controls would be administratively unfeasible or economically ineffective.

Plant and Equipment Expenditures.-Unlike the case with consumer installment credit and real estate mortgages, we have had little experience in this country in trying to control directly the volume of business expenditures on plant and equipment. During World War II and the Korean conflict, a combination of excess-profits taxes and accelerated depreciation allowances was used to channel investment goods into defense or defense-related industries. However, the purpose of selective regulation in the circumstances we have been discussing would not be to influence the direction of business investment spending, but rather to moderate its fluctuations by techniques that do not directly impinge on other areas of expenditure.

There are several possible indirect measures that might be utilized to influence the volume of business capital outlays without imposing general restraints on the entire economy. Variable depreciation allowances for tax purposes have been suggested as such a measure.19 Frequent variation of allowable depreciation rates, however, might lead to substantial accounting and enforcement problems. More important from the standpoint of this discussion, there is serious question about the effectiveness of moderate changes in allowable depreciation rates. One investigation of the liberalized depreciation provisions introduced by the 1954 revision of the tax code concluded that the investment stimulus from such provisions would be quite limited.20 For reasonable rates of discount, the excess of the present worth of liberalized depreciation over the old straight-line depreciation turns out to be quite small. For medium to high discount rates, moreover, the difference in depreciation was found to discriminate in favor of short-lived assets.

While there is no firm agreement on the subject, most statistical investigations have found that, under normal conditions, the magnitude of the flow of internally generated funds is one of the most important determinants of business investment. Varying depreciation allowances would affect the flow of funds to a firm only after the investment had been made. Furthermore, the time lags in question would overlap, so that funds would often be increasing from a liberalizing action taken in the past just when new circumstances dictated restrictions.

The Swedish government has developed a system of selectively influencing the volume of investment that seems to avoid many of the problems associated with variable depreciation allowances. In essence, it works as follows: Firms are allowed to deposit a certain proportion of their tax liabilities with the central bank. In turn, when the government wishes to stimulate investment, these reserves, in whole or in part, are released to the firms for investment purposes. In addition, a tax credit equal to a small percentage (now set at 10 per cent) of the investment outlay may also be claimed.²¹ These provisions allow the firm, at the discretion of the government, to amortize its investment immediately for tax purposes, and to receive the funds at once without

¹⁸ Monetary Policy and the Management of the Public Debt,

¹⁹ Testimony of Walter Heller, Hearings before the Joint Economic Committee Study of Employment, Growth, and Price Levels, 86th Cong., 1st sess. (Washington: U.S. Gov't Printing Office, 1959), Part 9a, pp. 2993 ff.

²⁰ E. Cary Brown, "The New Depreciation under the Income Tax," National Tax Journal, VIII (March, 1955), 81 ff. See also Richard Goode, "Accelerated Depreciation Allowances as a Stimulus to Investment," Quarterly Journal of Economics, LXIX (May, 1955), 191 ff. Goode points out that a speed-up in depreciation can have a favorable impact on investment decisions in those cases where decisions are made on the basis of a relatively short pay-out period. His favorable results stem mainly from the assumption that the assets in question have no earning capacity after the pay-out period is over, and that other income is not available against which to write off depreciation in the later years of this asset's life. When these assumptions are relaxed, his findings are not so strikingly different from Brown's.

²¹ For a discussion of the Swedish system, see Martin Norr. "The Taxation of Corporate Income in Sweden: Some Special Features," *National Tax Journal*, XII (December, 1959), 328 ff.

waiting until the investment is completed. This does not *guarantee* that the funds will be used to raise the level of investment above what it would have been. Nevertheless, it does provide both a powerful incentive and a source of funds for investment outlays. The additional investment allowance is an added incentive.

By raising the corporate tax rate during periods in which substantial excess demands for capital goods threaten price stability, and at the same time allowing firms to reserve certain of their tax payments for future investment purposes, fluctuations in investment outlays might be moderated without applying restrictive measures to the rest of the economy.

CONCLUSION

Because of the downward rigidity of wages and prices and the tendency for costs to rise whenever profits increase, a sharp change in the composition of demands or a difference in rates of growth in productivity among different industries can lead to a rise in the general level of prices. In the modern American economy, creeping inflation can, therefore, occur even though the over-all demand for goods does not exceed total supply.

General monetary and fiscal controls cannot eliminate such an inflation without keeping the economy significantly below its output potential. On the other hand, monetary and fiscal policies that do not restrain over-all demand, but impinge only on the sectors where demand is excessive, may limit inflationary forces during a period of creeping inflation. Counterinflationary monetary and fiscal policy, in other words, must take into account the composition as well as the level of total demand. Had investment demand risen more slowly between 1955 and 1957, and automobile and housing demand more evenly over the 1954 to 1957 period, we would have experienced a larger rise in output and a smaller increase in prices than that which actually occurred.

In the last few pages, we have suggested the possibility of using selective monetary and fiscal policies to combat creeping inflation. Even should such selective controls prove administratively feasible and economically effective, there is a major question that remains to be answered before their use could be recommended: Do we wish to check the dynamism of the economy by moderating the shifts in demand between various sectors of the economy? In other words, how much are we willing to pay for slowing down the rate of price increases in a manner that does not jeopardize full-employment objectives?

We are seldom faced with a policy question whose resolution does not involve balancing potential gains against potential costs. We can either attempt to alter the composition of demand by using selective monetary and fiscal policy or we can accept the moderate price increases that take place. This is the choice, so long as we wish to maintain full employment. We cannot solve the problems—indeed we shall do positive harm—by attempting to cure creeping inflation with strong doses of general monetary and fiscal medicine.

A Practical Approach to Risk Management

Primitive man's attempt to create a permanent area of safety by moving into caves is probably one of the earliest examples of risk management. This largely defensive practice involves the determining of and then the limiting of exposure to and the effects of natural disasters, mechanical failure, or human acts that may result in personal injury, damage, or financial loss.

Insurance has not always been a part of our economy, however; several dates in the development of insurance are noteworthy. Marine insurance was in operation in 1100 A.D. in a form very similar to that used today. Prior to the Civil War, fire insurance, which came into demand in 1666 following the great fire of London, and marine insurance were the two major insurance fields in this country. Boiler insurance became available around the middle of the nineteenth century. The casualty insurance business, which developed at about the same time, was strengthened by the intro-

duction from England in 1880 of employers' liability insurance. Fifteen years later, the development of the automobile brought with it automobile insurance—then simply a revision of earlier coverage on teams of horses.

Products liability insurance became available in 1910. By this time, the country's larger employers were forced to give separate attention to their insurance problems; clerks were assigned to check insurable values and to make certain that insurance policies were renewed. Employers were also deluged with industrial accident claims, insured, if at all, under employers' liability insurance. State legislatures were busily enacting workmen's compensation laws and the courts were just as expeditiously declaring them unconstitutional.

The first workmen's compensation insurance became available in 1911. The new profession of risk management developed during this period of confusion. Untrained clerks, incapable of providing insurance control, were replaced before the early 1920's by higher-level executives in most major companies. As insurance management demanded more and more

Mr. Gallagher is Manager, Insurance-Real Estate, Philco Corporation.

time and knowledge, executives handed it over to staff men, some of whom already had or acquired a formal education with emphasis on insurance. Others moving into industry from insurance companies provided the technical and practical know-how then required. As a result, demands increased in the thirties for newer, broader forms of insurance.

Although no one consciously applied the term "risk management," certain principles had begun to evolve. Men in widely separated areas had begun to consider their essential responsibilities; these are now refined to the point where they can be classified and given formal designations.

RISK ANALYSIS

Exposure to loss (excluding that resulting from poor managerial judgment or economic forces) must be analyzed before proper steps can be taken to contain or control it. Discovery of the exposure may be as simple as noting the proximity of a pail of gasoline to an open flame. Far more complex would be the determination of effects of using a current events telecast in an advertising program; or of switching from production for industry to production for consumer use, or from military to civil aviation products. Changes in formula, end use, instructions for use, and the very words the salesman speaks in making the sale create exposures.

Some practices must be considered in the light of their possible cumulative effect over the span of a lifetime. For example, scientists have for years experimented with the projection of electric power without the use of transmission lines. No one knows today what the possible effects on the general public and its property may be.

Every area, function, contract, and product of business must be investigated with this basic question in mind: Will anything here cause injury or damage and, if so, how? If injury or damage can possibly occur, the effects must be measured; unless these steps are taken, unjustified conclusions may be reached.

Analysis of the exposures peculiar to an in-

dustry requires the most accurate knowledge of its operations, and the risk manager cannot be expected to obtain this firsthand. He must rely on others who, as a part of their routine activities, handle operations of importance to insurance. The legal department, for example, reviews all contracts, differentiating between legal and business decisions. This department should notify the insurance department of all extraordinary risks assumed by the contract. It is not the responsibility of the legal department to evaluate the exposure; its responsibility ceases at the point of notification. Anticipated changes in the corporate entity require an inquiry into the extent of insurance involvement.

Revisions of standard purchasing or sales procedures almost inevitably have an effect on insurance. The risk manager's duties require studies of suppliers' plants, flow charts of material from subsuppliers to point of sales, knowledge of proposed expansion or contraction of operations, awareness of promotional activities, research and development projects, and similar information usually restricted to the top executive officers of the company.

It is the responsibility of management to set up a policy-supported procedure that will permit the risk manager to have access to all phases of operations, to learn of all projects well in advance of their inception dates, and to cut across established lines of communication with sufficient authority to obtain proper answers. With such prerogatives, the risk manager can appraise the need for protection; without them, he works in the dark.

LOSS MEASUREMENT

Once the exposure has been discovered, how is the possible extent of loss measured? The answer depends on the nature of the exposure. The accountant would have no trouble determining the actual cash value or current replacement cost of real or personal property that is subject to loss by fire. Loss of income because of fire is just as easily determined by reviewing the past in the terms of the immediate future.

However, when we attempt to predict the decisions of courts and juries in matters of tort or third-party liability, we run into trouble. The apparent tendency of many courts is to dissociate liability and fault involving negligence and to substitute the principle of need and ability to pay. This has led many who are studying the question to believe that, in this transition period, it is best to think in terms of maximum exposure and protection. The result is to drain the insurance markets by demands for higher and higher insurance limits. With today's individual verdicts of \$500,000, what will happen when accidents occurring in 1960 reach the trial courts, three, five, or ten years from now? How many millions of dollars of damage may arise from an airplane crash, a bad batch of food or pharmaceutical products, an apartment house fire, or the atomic poisoning of an entire city?

There is no way in which the maximum tort loss possible can be measured; watching the verdicts and projecting them as a trend is all that can be done. Here judgment will necessarily play a large part in the decision as to what represents the maximum loss possible. When the risk manager has established the trend in the size of future verdicts, he should adjust his experience to the expected basis and, considering expansion and contraction of operations, develop new average occurrence and annual loss figures.

Thus, in this first phase of the operation, the risk manager has established the existence of the exposure, the possible extent of predicted losses and, to the degree permitted by his experience, the probability of occurrence. Fires, accidents, and other casualties do not, unfortunately, follow established patterns within a specific company. They will, with minor deviations, follow the law of large numbers, but this applies only to the operations of a large group.

RISK ABATEMENT

Having pinpointed and measured the exposure, the risk manager must continue his research. Spread of risk, physical protection, and hazard elimination form the basis for our modern programs of risk control.

Abatement of risk has two concerns; direct loss and economic loss. The former is that represented as indemnity paid an employee or the public, or the dollar value of damaged or lost property or income. It is not generally understood that the economic loss almost always outweighs the direct loss; in industrial accidents, the ratio is estimated at 9 to 1. For example, when a workman is injured, all work in the immediate area stops. Medical and first aid staffs are involved. Fellow workers waste time discussing the injury and often are injured in a chain reaction. A replacement worker unfamiliar with the operation is frequently pressed into service, and his work may have defects not detectable at the inspector's station. When the product is in the hands of the consumer, the defect shows up as a warranty matter, or as a third-party liability claim.

Every company permits, through inadequate control, many procedures that create liability or exposure to loss. Risk abatement requires the elimination or reduction of an exposure that can be the source of loss. The early Chinese evolved a principle of risk abatement called spread of risk, a form of assurance that the entire property risked would not be subject to the same disaster. For example, shipments would be split up into multiple consignments on many vessels so that one storm or pirate raid could not cause a 100 per cent loss.

Physical problems, generally subjected to very rigid controls, are not often the source of unanticipated loss. Buildings are constructed of slow-burning or fire-resistant materials; combustible contents are separated from fire sources; sprinklers are installed to stop the fire at its source; and fire hydrants and "Siamese" connections are available should the sprinklers fail. One protective device is backed up by another. The number of key personnel traveling in one conveyance—land, air, or sea—is strictly limited. On the production end, tests of quality are continued throughout the entire production cycle to rule out human or mechanical failure. For example, drugs are exhaustively

tested on animals before being submitted for human trial.

The Neglected Areas

These steps are taken in most companies that have a rudimentary understanding of risk. However, through short-range or abbreviated thinking, every phase of management, production, distribution, and sales promotion contains areas of poor control. What are they?

Management requires pre-employment examinations to weed out incipient workmen's compensation and group insurance claimants, but there are seldom periodical examinations to detect a reduction in vision or manual dexterity or a lack of resistance to the effects of noise or repetitive motions. Comparatively few employers investigate thoroughly the preemployment records of prospective employees. The use of privately owned aircraft on company business is prohibited by one administration but approved under its successor. Manufactured products are placed on the market without exhaustive life-tests, and safety features are not built in because of cost competition. Production facilities are planned with large open areas that permit greater manufacturing flexibility but, at the same time, expose the entire facility to greater losses in case of fire. Terms of sale are changed by the actions of employees not involved with policy-making, leaving entire shipments at the risk of the shipper although title has passed to the consignee. Salesmen make unsupported statements that products designed for one purpose can be used successfully for another. Prices are quoted on extensive contracts without providing for them in the company's insurance program or without including the insurance premium as an item of expense. Film clips, sequences, and even entire films are shown in advertising programs without the necessary releases, waivers, and indemnification from networks, producers, agencies, and stations.

Real Estate.—Control of exposure begins prior to the purchase of the company's real estate. If unimproved land is to be acquired, it must be inspected for surface conditions that could interfere with future operations. A dust-producing factory in the vicinity of a proposed research laboratory could present problems. An airport developer is in a dangerous position if he cannot neutralize the lands beyond his actual operations needs to prevent their use for housing projects.

Subsurface conditions must be tested for weight-bearing and water-retention characteristics. The kind and formation of rock will give much information on the property's suitability. In one instance, a chemical manufacturer purchased a valley and surrounding hillsides as a settling basin for waste that could not be discharged into streams. Unfortunately, the subsurface was honeycombed limestone and within a few months, the basin was discharging directly into the stream sources.

Public sewerage must be available, or, to avoid public health claims, a means acceptable to governmental regulations for the discharge of sewage plant effluent must be found. Those planning the construction of buildings and equipment must recognize the importance of continuity of operations in the subject plant. Water must be available in sufficient quantity for fire protection.

The design and use of buildings still leaves much to be desired. Since no production facility can be placed in a completely fireproof situation, and if continuity of operations is desired, the more fire-resistant the construction and the more restricted the flammable materials, the safer the operation. This indicates the need for storage away from production areas. However, the larger implication is that where there are many small sources of fire, the total area should be divided into areas of containment. To do otherwise is to invite the total shutdown of a plant because of what should have been a minor fire. The effect upon insurance cost should also be considered in selecting real estate, and it is well to investigate the local administration of workmen's compensation. In some states-even portions of states-the review courts are so anti-employer that the cost of workmen's compensation insurance is almost prohibitive.

The Supplier.-Another neglected area of exposure control is in the method of selection and the contract terms of employment of suppliers of materials or services. Suppliers can shut down plants just as certainly as fires. Purchasing departments are careful to learn whether a prospective supplier has the capacity to meet his production schedules, but consideration is seldom given to the physical structure of his plant. If it is not fire-resistant and sprinkler-protected, should not a smaller apportionment of total requirement be made to that supplier, and the risk spread by using competing facilities? This may be wise even with double expense for tooling since the continuity of the purchaser's operations must be considered.

Suppliers' Responsibilities.—The second area for consideration is the responsibility of the supplier for injuries or damages, attributable to his product, that give rise to actions or claims against the purchaser in whose equipment the product finds its end use.

Hold-harmless agreements covered this in the past; under these, the supplier agreed "... to indemnify and save harmless the Purchaser of and from any and all claims, demands, suits and actions whatever, for injuries, including death at anytime resulting therefrom, or from damage to property or loss of use thereof..." This indemnification might be limited to the supplier's negligence, or it might include both active and passive negligence on the part of the purchaser.

Many risk managers, insurance consultants, insurance company executives, and insurance educators believe that the hold-harmless clause is unfair and inadequate except in situations where (a) the purchaser does not incorporate the primary product in an end product; (b) the product follows the design and specifications of the supplier; or (c) construction is the subject of the purchase order.

What protection should the purchaser require of the supplier? It has been recommended that the purchase order embody an agreement by the supplier, which may not be

waived by his terms of acceptance, to the effect that he will (a) join voluntarily in the defense of any suit against the purchaser; or (b) accept service of suit in any competent court having jurisdiction in any matter wherein it is alleged or implied that the product of the purchaser is or may have been defective because of the incorporation of the product of the supplier, or that the product of the supplier is or may have been responsible because of inherent defect or design. By this means, the supplier may be required to defend in a state where he does not ordinarily do business and where service of suit is not possible. It is a fair and equitable device in that it requires the supplier to defend his own errors. It should be noted. however, that the suggestion is not intended as a legal form but simply as an expression of the requested protection.

Investigation of a company's shipping procedures will often disclose practices that cause the supplier to retain risk liability for shipments sold on an F.O.B. supplier's factory basis until they are received at the purchaser's plant. This comes about through the use of a carrier or means of transport different from that requested in the purchase order. It can also apply when the subject property is shipped on a "released value" bill of lading, or uninsured parcel post or mail, without the prior approval of the purchaser.

At the conclusion of the operations termed risk abatement, the risk manager will reappraise the exposure and attempt to determine whether there is residual exposure after the approved recommendations have been carried out. If the exposure is slight, the risk may be assumed. Typical of the assumed risk are the low intensity risks of fractional horsepower motor burnout, factory glass breakage, and plant pilferage. These are treated as ordinary expense. Also typical is exposure to flood when the plant is built on land high above the flood level, and earthquake damage when the plant is built to withstand earthquakes. All exposures except those that may reasonably be assumed require risk insurance.

Risk insurance is the means by which provision is made for offsetting the financial effects of loss. The need for insurance, however, should stem not from the *probability* but from the *possibility* of loss. The degree of remoteness of probability is simply a factor of premium cost. If it is possible to eliminate the exposure, it is economically unsound to insure. Even when the exposure cannot be entirely eliminated, its partial abatement can make available insurance not available before, can lower costs of previously available coverage, or can increase the probability of continuity of operations.

When the exposure has been discovered and the loss potential found too great to pay out of current income, a formal insurance plan based upon self-insurance or commercial insurance must be provided.

Self-Insurance

Self-insurance sometimes is confused with risk assumption or noninsurance. Risk assumption may result from ignorance of exposure or from a decision to take a calculated risk. In either event, although the budget must provide for losses, no reserve fund or contributions for specific exposures are required. On the other hand, self-insurance is a formal plan covering defined hazards with reserves subject to accounting controls and is based on actuarial data determining periodic contributions to the fund. It is a program not to be undertaken lightly.

Where there is no commercial market for a hazard, self-insurance is the only alternative. Sometimes, with retrospective rating, the cost of the insurance company's services are greater than the cost of similar services within the industry. Retrospective rating plans may have only one thing to offer: the protection of excess insurance. In this case, it may be most advantageous to self-insure, self-service, and buy only excess insurance.

Self-insurance can and in fact should be practiced where deductibles are involved. In most instances, the deductible is treated as an uninsured expense and loses its identity. The amount of risk that may be self-insured or assumed under a deductible plan depends upon the company's earnings records as well as its balance sheet. A company having a high earnings-to-sales ratio can afford a higher risk assumption than a company having a low ratio. It is obvious that a company having little or no earnings would be taking a chance in assuming a large risk liability unless it had either excess reserves or no alternative. Many selfinsurers limit their risk liability to that which may result in a 5 to 10 per cent reduction in net earnings. This is purely a matter of judgment and depends on the company's dividend practices. The officers of a closely held company, having more latitude than those of a publicly held company, can accept the possibility of reducing dividends in the event of excessively assumed losses.

Whatever decision is made by a company's financial officers, it must represent the total amount the company is willing to commit to self-insurance in the fiscal year. Since insurance market and premium problems are involved, the allocation of this sum to specific hazards is the problem of the risk manager.

Self-insurance is economically advisable when the following conditions are present:

A low ratio of insured losses to insurance premium under available commercial plans

Probable profit through the substitution of self-insurance for commercial insurance

Availability of a feasible plan by which losses may be limited in their annual aggregate

The possibility of staffing and maintaining safety and claims departments without overstaffing

The availability of a cash reserve sufficient to absorb the maximum annual aggregate of losses, the assumption of which has been approved

The acceptance by management of the possibility that the reserve may be depleted or consumed without a compensating saving through eliminated premium expenses

Spread of risk; that is, a large number of similar units of exposure having approximately equal potential loss values Limited exposure to the same occurrences, meaning that one casualty cannot affect more than a small part of the group at once

Limitation of maximum possible loss, meaning that the total of assumed liability can be limited by the application of deductible or excess insurance and by insuring the excess of average annual losses

Successful self-insurance requires a funded reserve rather than a bookkeeping reserve. A portion of the general assets of the company must be specifically earmarked for loss payment, and the fund must be so invested as to permit its ready liquidation if the plan for self-insurance fails.

The self-insurance fund may be arranged to accommodate either a noninsured portion of the loss, such as is represented by the amount deductible, or the entire loss. It may also be used as a reserve fund for occurrences having too small a maximum exposure to make commercial insurance advisable.

Since the continuation of a self-insurance fund is essential, replenishment by charges to participating entities must be considered from a tax standpoint. Two facts are of immediate importance: Deposits to the fund are not deductible as expense; and losses paid by the fund are deductible as expense only to the extent of the company's income. It should be definitely understood which exposures are to be covered by the plan; it cannot become a catchall for the payment of every picayune loss. This requires a policy statement that broadly defines the areas insured and those to be accepted under the self-insurance plan. For example, the first \$10,000 of each loss involving company property or earnings could be assumed under the plan, and the excess could be commercially insured. However, if these steps alone were taken, the cumulative effect of individual deductibles would not be controlled. A true self-insurance plan, in the absence of large reserves and a stable current income, requires such control.

Self-insured specific exposures should be treated exactly like commercially insured exposures. Hazard accounts should be treated as insurance, with accruals corresponding to premiums; and losses and adjustment expense should be charged to each account. Since the assumption of loss created the need for coverage, premium expense for excess of annual aggregate insurance should be charged to hazard accounts.

Commercial Insurance

Commercial insurance is the best method yet found by most business firms for control of risk. Whether it is comprehensive or whether, with an applied deductible, it covers only the unpredicted loss, it may offer many tangible savings. Unless all conditions favorable to selfinsurance are present, commercial insurance is indicated.

The choice of an insurance carrier involves more than a review of his finances. An insurance company unable to service its policyholders can be decidedly harmful. A small local automobile insurance company with home offices on the east coast would have few occasions to use adjusters or counsel in other parts of the country and would therefore offer a poor claims service for those areas. Although a small general liability company would more often make use of adjusters in other areas, its claims service would probably not be consistent. However, if the small company should have efficient claims service where it is required, it could do as thorough a job as a larger company.

Engineering services in loss prevention have been a part of insurance company programs for the past century, but these services are far from uniform. When safety and loss prevention services are not available within a company, they must be sought elsewhere; several specialist companies exist in the field.

Insurance carriers do not all have the same underwriting philosophy. Some bitterly resist the deductible principle except for weeding out nuisance claims, and are equally averse to writing excess insurance. The content of the insurance policy is also of major importance.

Some otherwise aggressive insurance companies are very conservative in accepting certain perils. They are convinced that some perils are not economically insurable or that the going rates make no provision for profit or catastrophe. The need for flood insurance was markedly demonstrated by disastrous hurricane-floods a few years ago, and the government found this a difficult problem. Residents of the valley wanted insurance, but none on the hill would contribute.

All insurance is not in the flood class, however. Many forms that, according to some companies, can be written profitably, will not be touched by others. The insurance purchaser must find the carrier whose philosophy best meets the needs of his program.

Choice of Carrier.—Finally, it is necessary in choosing a carrier to inquire into his financial resources. Much information on American insurance companies is available through financial services. A conservative insurance company will appear, on paper, to be no sounder or less sound than a more aggressive neighbor, but the study must go deeper than that. The aggressive company may have practices that could place it in jeopardy. For example, all insurance companies today profess deep concern over the steadily worsening trend of automobile insurance claims. If the conservative company is having trouble absorbing losses caused by "average" drivers, what may be expected of the company that seeks out the "risks" that have been canceled or refused by other companies, insuring them at high rates? This is not intended to find fault with either kind of company but to suggest a basis for comparison.

Financial data on American Lloyds Association and some reciprocals are available through the insurance departments of the state of domicile. Lloyds of London has created a trust fund at the First National City Bank of New York stated to be over a quarter of a billion dollars and available for any judgment under the trust agreement. An exhaustive study of the security available to American uninsureds under Lloyds of London contracts

was published in 1955 by Charles H. Graves, director of insurance for The Colorado Fuel and Iron Company.

Since foreign financial statements do not follow the same form or contain the same information as those in the United States, financial information on foreign insurers requires individual study of each company. It is well to place this responsibility in the hands of a large brokerage house that is in daily contact with such companies.

The Captive Insurance Company

In a number of industries, the formation of a captive insurance company has been the only answer to insurance cost control. The captive insurance company can take on any of the customary forms: stock, mutual, reciprocal, or Lloyds association. It can solve the everpresent problem of the self-insurance planthe creation of a reserve fund.

Such an insurance market can be created to write the coverages its managers deem reasonable, provided that there is no conflict with the law. The profits coming from the venture belong to the insurance company and may be paid back to the parent company as dividends on capital stock or as premium redundancies.

However, unless there is a possibility of a financial killing, another type of insurance would probably be more feasible. An insurance company must be licensed to do business, and licensing laws are many and complex. They range from underwriting powers, capital and reserve requirements, and policy forms to the requirement that the company accept customers from the assigned risk pools in the ratio of their total premium to the total premium of all companies in the state. (Assigned risk pools are state-regulated for the purpose of insuring drivers with bad accident and motor-vehicle violation records.)

According to current information, the deductible or excess insurance plan of the self-insurer will cost about the same as the reinsurance required by the captive insurance company. However, this question is debatable.

The captive insurance company cannot

operate entirely as it wishes. It not only must comply with laws regulating kind and form of insurance, but its rates are subject to the same scrutiny as those of a commercial insurance company. It must join rating bureaus, provide for proper investment of its funds, maintain a certain degree of liquidity, and hazard no more than a specified formula amount in any one risk.

LOOKING AHEAD

Many risk managers report that they now occupy a much more responsible position in their companies than they did four years ago. They attend company conferences that formerly excluded them; recommendations on methods of risk abatement and insurance are either more readily accepted or are rejected at a higher level. To carry out the present concept of their function, they have been given new man power and thus have been able to go more fully into the analysis and abatement phases of their programs.

With greater attention being paid to risk abatement, the propriety of the deductible plan is more easily seen. Indications are that property insurance is moving toward deductibles in ever-increasing amounts. Technical differences aside, it is believed that every form of insurance not requiring servicing (as do workmen's compensation and third-party public liability) will be offered with attractive deductibles in the next few years. The term "attractive" denotes improvement over today's plans that require the insured to assume apparently the major portion of predictable losses in return for a minor reduction in premium.

Insurance coverages are becoming broader. Where primary insurance is now being written on the basis of a named peril (such as fire, lightning, and windstorm) it is possible to buy a "difference in conditions" coverage that insures, on an all-risk basis, perils not insured under the primary policy. As a result of the impetus given the movement by risk managers, primary insurance within the next few years will absorb the difference in conditions coverage, and a new broad form will evolve. A 1952

college text states that "depreciation losses . . . are uninsurable, since there is nothing accidental about their occurrence." Yet it *is* possible to recover depreciation losses when property is destroyed.

A minority holds that the present trend toward package policies will be reversed. This group can see no benefit in the unnatural binding together in one policy of nonhomogeneous perils such as fire, fidelity bonds, and thirdparty public liability insurance. In their opinion, however, insuring all physical damage to real and personal property under one policy has fundamental merit and will expand.

Retrospective rating in its present form will continue for many years, but is even now emerging in a new form for large self-insurers. The excess of loss and excess of annual aggregate coverages either are now or shortly will be written in a retrospective form following the principles now used in insurance and reinsurance companies.

Risk Management Education

Most business executives have never considered the educational facilities that prepare the risk manager for his work. Had they inquired, they would have found that our colleges and universities educate men to become insurance company executives, salesmen, and actuaries, but not risk managers. The risk manager has found it necessary to adapt his formal education to the requirements of his job. As a result, his familiarity with contract, tort, transportation, and insurance law has grown with his on-the-job training.

di

ar

fa

cr

W

W

po

cie

za

pu

th

tic

po

giv

pre

the

Two years ago, however, after years of prodding by risk managers, the American Association of University Teachers of Insurance appointed a committee to consider the development of college curricula for risk management. The risk manager, in a few years, will have been *educated* rather than *trained* in his profession. When this comes about, not just a few but all risk managers will play the same role with respect to facilities and operations that the controller does in the financial field.

Business Implications of POPULATION GROWTH

Population trends and their implications have probably received more attention during the post-World War II period than at any time since Malthus first published his famous Essay on Population in 1798. The increasing concern with population matters is widespread both geographically and in the spectrum of interests represented. In the postwar period there has been much discussion of population problems by international agencies, national governments, business organizations, and scientists. Moreover, the general public has in recent months become party to the discussion, as evidenced by the international and national press.

The reasons for the growing concern with population matters are varied. The United Nations and its specialized agencies have given considerable attention to population problems because of the role of population

growth and composition in the economic development of the underdeveloped areas of the world. Individual nations have been concerned with population trends and their implications from different points of view; for example, India, with the implications of her accelerating rates of population growth for her efforts to raise levels of living, and France with the implications of her relatively low rate of population growth for her position as a world power. In the United States, the interest manifested in population problems in recent years has been of two kinds. First, during most of the postwar period, the national resurgence in population growth has with few exceptions been analyzed from the standpoint of the short-run effects on expanding markets and economic activity. Second, there has been a growing concern about the consequences of world population trends, especially in the economically less-advanced nations.

Let us turn first to an examination of the population outlook for the world as a whole and for the United States in particular, and

Mr. Hauser is Chairman of the Department of Sociology at the University of Chicago.

then to a consideration of the implications of the outlook with special reference to the interests of the business community.

WORLD INCREASES

In considering the world population outlook, it is well to bear certain perspectives in mind. To begin with, the total surface of the earth contains some 200 million square miles. Only a fourth of this surface is land. Only a tenth of the land surface is arable, and another tenth is potentially arable. These observations add up to the fact that this planet is finite and that the population that the earth can support is therefore also finite; both the available space and the ability of the earth to produce food, fibers, and other requisites for human life are restricted.

In 1950, the population of the world was estimated at about 2.5 billion. This population was distributed rather unevenly over the surface of the globe; half of the population was in Asia, a fourth in Europe, and the remaining fourth distributed over the rest of the earth. About two-thirds of the world population was concentrated in about a tenth of the land surface, in four great regions—South Asia, Southeast Asia and the offshore islands, Europe, and Northeastern United States.

The 1950 world population of 2.5 billion was reached by quite uneven rates of growth. During most of the two hundred thousand to a million years that Homo sapiens has been on the earth, his numbers could not have increased at more than 1 per cent per century. In fact, a population of the present magnitude could have been produced from an initial population of two dozen persons, increasing at the rate of .02 per cent per year over a period of one hundred thousand years. The rate of world population growth has increased explosively during the modern era, that is, the three centuries beginning in 1650. During this period. the rate increased from about 0.4 per cent per year between 1650 and 1750 to approximately 1 per cent per year between 1930 and 1940. While a 1 per cent return on capital seems niggardly, a 1 per cent annual population increase produces fantastic results in relatively short periods of time. This can be quickly documented by indicating the population that would be produced by one hundred persons reproducing at a rate of 1 per cent per year, not for the entire period that man has been on earth, but merely for the 5,000 years of recorded history. Under such conditions, there would be on the face of the earth today 2.7 billion persons for each square foot of land surface—a number that happens to be the United Nations estimate of *world* population for 1957!

At the rate of population increase in 1700, world population would have doubled every 178 years. By 1800, continued acceleration of the rate of increase reduced the period of doubling to 154 years; by 1930, to 75 years; by 1950, to 58 years. At the present rate of world population increase, 1.7 per cent per year, a doubling of the population will occur in about 40 years. World population actually doubled in the 70 years between 1887 and 1957. Thus, it took between two hundred thousand and a million years to produce a population of about 1.3 billion people and only 70 additional years to double this figure. Considerations of this type have led the demographer to use the emotionally loaded phrase "population explosion" to indicate the changes in rates of population growth during the modern era.

These changes in population growth rates are the concomitants of man's culture-building activities. The great spurt in growth rates is primarily the result of decreased death rates. These in turn were partly unanticipated byproducts and partly direct results of increased agricultural and industrial productivity, improved environmental sanitation and personal hygiene, and modern medicine. The world population explosion is still under way. The United Nations outlook for world population growth is summarized in Table 1.

During the third quarter of this century, according to the "medium" assumptions of the United Nations, world population will increase at the rate of 2.1 per cent per year, and will reach a total of over 3.8 billion by 1975. During the fourth quarter of this century, the

a p

E

or or in

p

T) va

je av of w

ha by ple

la

19

TABLE 1

Estimated Population and Population Increases, 1900-2000

Year	World	Africa	North America	Latin America	Asia	Europe (incl. ussa)	Oceania
			Population in	millions			
1900	1,550	120	81	63	857	423	6
1925	1,907	147	126	99	1,020	505	10
1950	2,497	199	168	163	1,380	574	13
1975	3,828	303	240	303	2,210	751	21
2000	6,267	517	312	592	3,870	947	29
		Average	Annual Perce	entage Increase	0		
1900-1925	0.9	0.9	2.2	2.3	0.8	0.8	2.3
1925-1950	1.2	1.4	1.3	2.6	1.4	0.6	1.4
1950-1975	2.1	2.1	1.7	3.4	2.4	1.2	2.4
1975-2000	2.6	2.8	1.2	3.8	3.0	1.0	1.6

^o Arithmetic mean of percentage increase for 25-year periods as projected by United Nations; "medium" assumptions. Source: the future growth of world population (New York: United Nations, 1958), p. 23.

average annual percentage increase in world population will reach 2.6 per cent, a rate that would produce a total world population of 6.3 billion by the year 2000. According to these projections, then, the population of the world will increase by 1.3 billion in the third quarter of this century and by an additional 2.5 billion—a number equal to the total world population in 1950—during the fourth quarter of this century.

Breakdown by Major Areas

This global picture of population growth varies considerably, of course, by continent and nation.

Asia. With more than half the world's population in 1950, Asia will, according to UN projections, increase at a rate above the world average both in the third and fourth quarters of this century. Between 1950 and 1975, Asia will have an annual percentage increase of 2.4; and between 1975 and 2000, an average annual percentage increase of 3.0. Asia's population by the end of the century is projected to be about 3.9 billion. Thus, during the second half of this century, Asia is destined to increase by some 2.5 billion persons or by as many people as were on the entire globe in 1950.

Africa. With a population of 199 million in 1950, Africa is projected to have a 2.1 per cent

average annual increase during the third quarter of the century, and a 2.8 per cent average annual increase during the fourth quarter of the century. Thus, Africa will have a population of 517 million by the year 2000, a 2½-fold increase amounting to over 300 million persons.

Latin America. With a population of 163 million in 1950, Latin America south of the Rio Grande will have an average annual percentage increase of 3.4 per cent during the third quarter, and of 3.8 per cent during the fourth quarter of this century. By the year 2000, Latin America, according to this projection, will have a population of 592 million or an increase of 429 million persons in the last half of this century.

North America. In 1950, America north of the Rio Grande had a population of 168 million. With the projected increase of 1.7 per cent per year during the third quarter of the century, and 1.2 per cent during the fourth quarter of the century, North America will have a total population of 312 million in the year 2000, an increase of 429 million during the second half of this century.

Europe. Finally, Europe, with a population of 574 million in 1950, will, according to the UN projections, experience the lowest of the population increases of the continents: a 1.2 per cent per year increase in the third quarter

and a 1.0 per cent per year increase during the fourth quarter of this century. Under these assumptions, Europe will have a population of 947 million by the year 2000, an increase of some 373 million persons during the second half of the century.

In summary, then, the population of the world by the end of the century-6.3 billionwill be about 2½ times the 1950 total. Of the world increase of 3.8 billion persons, about two-thirds, or 2.5 billion, will occur in Asia. Latin America will experience the next largest increase, well over 400 million persons, followed by Europe with an increase of about 370 million persons, and Africa with an increase of over 300 million. North America during the same period will increase by 144 million. Finally, to complete the picture, Oceania, with a total population of 13 million in 1950, will more than double during the second half of the century to reach a total of 29 million persons.

U.S. INCREASES

The United States provides one of the world's most dramatic examples of explosive population increase. The growth of the United States reflects, of course, not only a great natural increase as mortality declined more rapidly than fertility, but also the effects of immigration.

The picture of national growth may be quickly summarized. The first census of the United States, taken in 1790, recorded a population of fewer than 4 million persons. Between 1790 and 1950, the population of the United States doubled five times. The first three doublings occurred every twenty-five years, during the period between 1790 and 1865. The fourth doubling took thirty-five years, from 1865 to 1900. The fifth doubling took a half-century, from the beginning to the middle of the present century. Here is an example of tremendous population increase over a relatively short period of time, but an increase at a decreasing rate, as is evidenced by the increasing length of the period for doubling.

During the depression of the 1930's, projections of population estimated that the maximum population the United States would achieve would be about 165 million, this toward the end of the century. The United States would then be faced with a period of stationary and then declining population. These projections were widely accepted as the likely course of events because, for one thing, they were consistent with trends observed in other Western nations. In France, the United Kingdom, and Sweden, the rapidly declining birth rate seemed to augur population decline and became a matter of national concern. Major national studies were undertaken in each of these nations to ascertain the likely course of events and to deal with the problem of raising national birth rates to prevent potential depopulation.

F

19

19

26

tio du

rat

wa

ma

tur

jec

per

rate

tha

ula mil

alor

Chi

itse

sho

leve

be a

iner

be s

U.S.

lowi

L

The actual course of events has belied the population projections for the United States as well as for other Western nations. The United States became a nation of 165 million, not in the year 2000, but in 1955; and at the present time, as the 18th Decennial Census results will document, the population of the United States is at a level of about 180 million. The explanation for the great difference between the projection and the fact is to be found, of course, in the postwar boom in marriages and births-a boom that was unanticipated both in its magnitude and duration. The United States, at the present time, is one of four nations on the globe (the others are Canada, Australia, and New Zealand) in which the postwar level of fertility has persisted for fourteen years.

During this period, a bumper crop of approximately 55 million babies has changed the present and prospective total national growth. The U.S. Bureau of the Census has projected the population of the United States to the year 1980, under varying assumptions; and the Social Security Administration (Division of the Actuary) has made projections to the year 2050. Projections to the year 2000 are summarized in Table 2.

The projections show that the maintenance of the postwar birth rate for the United States would by 1980 produce a population of about

TABLE 2
Population of the U.S., 1950 and Projections to 2000

(In thousands of persons)

Year	Medium Projection	Low Projection	High Projection
1950	151,683	***********	
1960	180,126	179,420	181,154
1970	213,810	202,541	219,474
1980	259,981	230,834	272,557
1990	313,538	252,361	320,761
2000°	332,239	262,516	377,486
	342,673	272,178	388,444

On Two estimates are shown for each projection for the year 2000, based on different assumptions with respect to the death rate.

Sources: For 1950: Bureau of the Census, U.S. Dep't of Commerce, 1950 census of population (Washington: U.S. Gov't Printing Office, 1951). For 1960-80: Bureau of the Census, "Illustrative Projections of the United States, By Age and Sex 1960 to 1980," current population reports (1958), p. 16. For 1990-2000: Division of the Actuary, Social Security Administration, U.S. Dep't of Health, Education, and Welfare, Illustrative united states population projections (Washington: U.S. Gov't Printing Office, 1957), pp. 23-24. The Census and Social Security Administration projections as presented are not strictly comparable but are sufficiently so for purposes of this article.

260 million; and by the year 2000 a population of 377 to 388 million, the variation being due to differing assumptions about the death rate. On the likely assumption that the postwar birth rate of the United States will not be maintained throughout the rest of this century, the Social Security Administration projects a population of from 332 to 343 million persons by the year 2000.

Thus, the maintenance of the present birth rate would by 1980, in a period of little more than one human generation, increase the population of the United States by about 110 million persons over that of 1950. This *increase alone* would constitute the fifth largest nation in the world today, exceeded in size only by China, India, the USSR, and the United States itself.

Drawing further on the census projections, should the birth rate decline to the wartime level, the population of the U.S. by 1980 would be about 231 million; and should the birth rate increase by 10 per cent, the population could be some 273 million. The population of the U.S., then, in the single human generation following 1950, could increase at the lower limit

by about 80 million, the equivalent of a nation the size of Pakistan; and at the upper limit by about 125 million, the equivalent of the entire population of Pakistan and the United Kingdom combined.

Should the postwar birth rate persist to the year 2000, the population would increase by perhaps an additional 125 million persons in the twenty years between 1980 and 2000. That is, the maintenance of our postwar birth rate (about 25 births per 1,000 persons per year) would increase the population of the United States by over 230 million in the second half of this century, as contrasted with an increase of about 75 million during the first half of the century.

Reasonable assumptions based on a decline in fertility during the remainder of the century would give a population of from 332 to 342 million by the end of the century. Thus, even with a fertility decline, the population of the United States in the second half of the century could increase by about 190 million persons, a population about equivalent to that of the USSR. (The population of the USSR, however, would be increasing over the same period more rapidly than that of the United States.)

In brief, the population of the United States during the second half of the century could increase by from about 171 to over 237 million persons, to reach a total of from 332 to 388 million, with the latter figure being the less likely.

WORLD IMPLICATIONS

The implications to the business community of the rapidly increasing world population may be broken down into direct implications and indirect implications. The direct consequences of the world population outlook may be gauged in terms of the world market; the indirect consequences in terms of their long-run and short-run political and economic impact on the world in general.

The World Market

Markets are people with purchasing power. The explosive increase of world population obviously means that in at least one sense the market is expanding. But, unfortunately, the world market will not increase as rapidly as world population. For the outlook for a corresponding increase in world purchasing power is dim indeed.

In 1950, North America, with 9 per cent of the world's population, enjoyed 44 per cent of the world's income. Europe (excluding the USSR), with 17 per cent of the world's population, enjoyed an additional 27 per cent of the world's income. Thus, North America and Europe combined, with about a fourth of the world's population, had over 70 per cent of the world's total income. In contrast, Asia in 1950, with 53 per cent of the world's population, had less than 11 per cent of the world's income. Per capita income (in U.S. dollars) was \$1,100 for North America in 1950, but only \$50 for Asia. The market as measured by Continental income was \$237 billion for North America; whereas Asia (excluding the ussr), despite her much greater population, was at a level of \$58 billion. Continental income for Europe (excluding the USSR), with less than a third of Asia's population, was \$149 billion, or over 2½ times that of Asia.

During the remainder of the century there will be, in general, an inverse relationship between the per capita income of nations and their rates of population growth. The population of the relatively underdeveloped areas of the world will increase at a more rapid rate than that of the economically advanced continents. During the last quarter of the century, for example, while North America is increasing at an average of 1.2 per cent per year, and Europe at 1.0 per cent, Asia will be increasing at 3.0 per cent, Africa at 2.8 per cent, and Latin America at 3.8 per cent.

Advanced vs. Underdeveloped Nations

If the world is divided into two economic categories—the advanced countries and the underdeveloped countries—the population outlook of each category is quite different.¹ Among the advanced countries are included North America, temperate-zone South America, Japan, Europe, the Soviet Union, Australia, and New Zealand. In 1950, these nations had a population estimated at 863 million. By 2000, the population of these nations will reach nearly 1.5 billion. Their annual percentage increase in population will average 1.2 per cent between 1950 and 1975, and 1.0 per cent between 1975 and 2000.

The underdeveloped countries include the African countries, Central America, tropical South America, Asia (excluding Japan and the Soviet Union), and the Pacific Islands (excluding Australia and New Zealand). The population of this area in 1950 was estimated at 1.6 billion. The growth of these underdeveloped countries may proceed at a rate of 2.0 per cent per year between 1950 and 1975, and 2.4 per cent per year between 1975 and 2000. The population of these nations by 2000 may be some 4.8 billion.

That is, between 1950 and 2000, the population of the economically advanced countries is likely to increase by about 600 million, whereas that of the underdeveloped countries will increase by over five times that figure, 3.2 billion. Needless to say, the market in the economically underdeveloped countries will not increase by a factor of five. The evidence indicates that, if anything, the gap between the have and have-not nations is increasing rather than decreasing.

ti

5

h

a

ti

p

ea

fin

cl

of

di

W

ev

W

ro

W

ali

Su

sta

fac

ma

(N

Of special interest to U.S. business is the prospect of the rapidly expanding population in Latin America. The proximity of Latin America to the United States, and the special historical relations between the northern and southern parts of the Western hemisphere, may make the Latin American market an increasingly attractive one to U.S. business; Latin American development needs may make it an even more important area for United States investment. It should be noted that, although the population of North America outnumbered that of Latin America by 5 million persons in 1950, and that despite the postwar baby boom in North America, Latin America is likely to outnumber North America

¹ Population Reference Bureau, "World Population Review," Population Bulletin, XV (March, 1959), pp. 19-20.

by 280 million people by the end of the century! During the fourth quarter of this century, Latin America will be increasing at a rate producing a doubling every eighteen years.

It would be meaningless to attempt to quantify the national income of the underdeveloped areas by the year 2000. From a market standpoint, the underprivileged areas in Asia and Africa will remain relatively impoverished. On the other hand, the market of the advanced countries of the world, together with the possibility of increasing business relations with Latin America, provides tremendous opportunities for investment and foreigntrade expansion during the remainder of the century.

Long-Run Implications

The long-run implications of explosive world population increase can be more easily grasped if they are related to the population-carrying capacity of the globe. Although such a calculation is necessarily conjectural, it is instructive to observe that such estimates vary from 5 billion to 50 billion. The latter number is the highest ever published by a responsible scholar and it is based on rather extreme assumptions. Harrison Brown, who made this estimate, indicates that a population of 50 billion persons could be sustained indefinitely on the earth under two difficult assumptions.2 The first is that the control of solar energy or nuclear energy will be achieved so that the cost of energy will be very low. Under such a condition, we would not need to be concerned with the conservation of resources, because everything needed to support this population would be obtained from the air, the seas, and rock. The second assumption is that mankind will not only forgo meat, as the Hindu has already done, but also vegetables, and will subsist in large part on algae, a yeastlike substance raised on the ocean or developed in factories.

With present rates of growth, even this maximum figure would not be very far off; in

fact, it would be reached in less than 200 years. Just how impossible it is for the present world rate of population growth to continue much longer is indicated by the fact that, at present rates, there would be one person for every square foot of land surface on the globe within less than 800 years.

Calculations of this type are admittedly academic. They are designed merely to indicate the implications of population increase, implications that obviously cannot come to pass. The mere consideration of these data, however, is one of the reasons these extreme numbers will not be reached. For mankind, by recognizing the implications of his present rates of reproduction, is bound to modify them. The calculations make it clear that present rates of increase cannot be sustained for long, if for no other reason than the limitations of space on the globe. Of course, if one assumes that we can colonize outer space, then such a limitation does not exist.

Short-Run Implications

Perhaps of more immediate concern to the world are the short-run implications of population increase. Rapid population growth is an important factor in the bipolar world political situation. It affects the bitter struggle between the free nations and the Communist nations for ascendancy and constitutes a major threat to peace.

There is a great imbalance between the distribution of the world's population and the world's utilized resources; this imbalance is manifest in international differences in standards of living. At the extreme, these differences, as was indicated by the per capita incomes cited above, may be in a ratio of as much as 20 to 1.

The great gulf between the have and havenot nations is a major source of international friction and a great barrier to world peace. The various types of technical assistance programs, those of the United Nations and the specialized agencies, the Point Four Program, the Colombo Plan, and the programs of the great foundations, together with the strenuous

² Harrison Brown, The Challenge of Man's Future (New York: The Viking Press, Inc., 1954), pp. 146, 220-21.

efforts of the less-developed countries themselves, are designed to raise world-wide standards of living, partly in the interest of international peace. Clearly, in order to increase the standards of living, aggregate production must increase more rapidly than population. In most of the have-not nations, the more slowly that the population grows, the more that increases in production are likely to be reflected in higher output per capita and higher standards of living. Because the initial effect of induced economic development programs is to decrease the death rate and increase the rate of population growth, rapidly growing populations threaten to nullify efforts to raise standards of living.

This threat is particularly great at the present time in the context of the struggle between the free and the Communist countries. The Communist countries continuously exploit the mass poverty of the less-developed areas of the world, especially the highly strategic area of South and Southeast Asia. The Communists not only attribute the misery of the have-not nations to the "imperialist policies" of the capitalist nations, but also promise quicker methods for achieving higher levels of living. If the less-developed nations in Asia are unable to achieve higher living standards by increasing product per capita, either by controlling population growth, or by achieving great increases in productivity, or by some combination of both, they are likely to be easier prey to Communist propaganda. Should this happen, a real threat would be posed not only to world peace but also to the way of life in the free countries.

At the present time, about a third of the world's people live in the free countries and about a third in the Communist countries. The remaining third live primarily in the uncommitted countries, mainly in South and Southeast Asia. In view of the resources and the population that the uncommitted nations command, it is reasonably clear that the balance of world power in the long run may be determined by the success of the free or Communist bloc in capturing the allegiance of the uncommitted nations.

In the short run, then, what is of major con-

cern to business about the world population outlook is its threat to world peace and the way in which population growth could affect the outcome of the gigantic struggle between the two opposing power blocs.

U.S. IMPLICATIONS

In the Long Run

In the long run, as with the rest of the world, the continuation of the present rate of population increase in the United States does not necessarily mean continued increases in productivity and higher levels of living. A population of 332 to 343 million Americans by 2000 could mean decreased product per capita. Certainly the maintenance of our postwar birth rate to the year 2050 is not likely to be accompanied by continued increases in productivity and rising levels of living of the type that we have experienced in the past.

One demographic factor tending to decrease U.S. product per capita is already at work. This is the changing age composition of the population. Throughout the history of the United States, until the postwar baby boom, the dependency ratio decreased; that is, the ratio of persons below and above working age (under 20 and 65 and over) to population of working age (20 to 64) decreased. In 1900, for example, there were about 94 dependents under and over productive age for each 100 persons of productive age. By 1940, the numbers of dependents per 100 persons had decreased to 72. As the result of the baby boom and the decline in mortality rates, dependency increased to 74 by 1950, and may well be at a level of 87 in 1960. Even with the assumptions of declining fertility, the dependency ratio may reach a level of 96 or 97 by 1975, and still be at a level of from 85 to 87 by the year 2000.

S

re

d

0]

is

li

of

no

m

th

en

sh

Ro

Thus, the postwar baby boom has for the first time in the history of this nation produced a situation in which mouths are growing more rapidly than hands. Other things being equal, this means decreased product per capita in the nation. It does not, of course, necessarily mean that actual product per capita, and therefore

standards of living, will decline over the next several decades. On the contrary, the indication for the time being is that increased productivity, as a result of improved technology and increased investment, will more than offset the tendency toward decreased product per capita created by our changing age structure. But population factors for the first time are clearly operating to decrease rather than increase standards of living.

In the longer run, the more serious effect of population on levels of living will be manifest in the changing ratio of total U.S. population to resources. In 1900, the United States, except for food, produced some 15 per cent more raw materials than it consumed. By the middle of the century, however, this nation was consuming about 10 per cent more raw materials than it produced. In 1952, the President's Materials Policy Commission listed thirty-three separate minerals already on the critical list.

With the explosive population increase facing the rest of the world, the U.S. cannot depend indefinitely on external sources for its mineral needs to meet present, let alone increasing, rates of consumption. Analyses of rates of population growth in relation to the utilization of natural resources indicate that standards of living in the economically advanced nations of the world will be adversely affected by a diminution of nonrenewable resources, or greatly increased costs of renewable resources.

Samuel Ordway, in disagreeing with the relatively optimistic presentation of the President's Materials Policy Commission, has developed a theory of "limited growth." His theory is based on two premises: (1) "levels of human living are constantly rising with mounting use of natural resources," and (2) "despite technological progress we are spending each year more resource capital than is created." The theory holds that "if this cycle continues long enough, basic resources will come into such short supply that rising cost will make their

The precise date of such an eventuality as Ordway describes cannot be fixed, but with a population of a billion persons in this country, which could conceivably be reached by the year 2050, we could be well down the road to "the limit of growth."

In the Short Run

In the short run, as most of the postwar discussion of the subject indicates, national resurgence in population growth has meant, and will continue for some time into the future to mean, rapidly expanding markets and continued economic growth. Between 1950 and 1980, explosive U.S. population growth will be accompanied by about a doubling of the gross national product. That is, in the short run, both increased productivity and increased labor input will contribute to the expansion of our GNP. The doubling of GNP in the course of a single human generation in effect means an increment in goods and services that in itself exceeds the GNP of any nation on the face of the globe today other than the United States itself.

National resurgence in population growth is immediately translatable into greatly increased opportunity for investment in the expansion of facilities for the production of goods and services, and in a considerable increase in what already constitutes the world's greatest market. Perhaps it should be mentioned that over the same period a similar expansion, although of course on a lower absolute level, is under way in Canada, already our best customer.

In the short run, then, explosive population growth over the next two or three decades may continue to mean high levels of economic activity and higher levels of living. In the longer run, however, these gains may have to be achieved at the expense of standards of living of future generations in the world as a whole, and even in our fabulously wealthy United States.

use in additional production unprofitable, industrial expansion will cease, and we shall have reached the limit of growth."

³ Samuel H. Ordway, Jr., "Possible Limits of Raw Material Consumption," in William L. Thomas, Jr., *Man's Role in Changing the Face of the Earth* (Chicago: University of Chicago Press, 1956), p. 992.

Concentration of Population

One further effect of the great population increases in prospect for the United States must be noted. Explosive national population growth in the U.S. has been accompanied by an increasing concentration of population in a relatively small number of metropolitan areas. At the beginning of the century, about a third of the population in the United States lived in areas that would qualify as Standard Metropolitan Areas as defined by the federal government in 1950. By 1950, this percentage had increased to 57 per cent. By 1980, perhaps 68 per cent of the population will be in metropolitan areas and, by the year 2000, perhaps as much as 78 per cent.

The increased size of these clumpings of people and economic activities has many direct business implications that cannot be elaborated upon here. But there is a tremendously important consequence that must be at least mentioned. This is the way in which the increased size in concentration of the population affects the role of government at the federal, state, and local levels. Increase in metropolitanism as a way of life, involving an increasing complexity in and interdependence of social and economic organization, necessitates an ever-increasing multiplication of governmental functions and interventionism. The great expansion in governmental functions that has characterized the political organization of the United States from the beginning of our national history is undoubtedly attributable to the increase in urban and metropolitan living. There can be little doubt that the combination of greatly increased population, creating pressures on national resources, and the increasing "metropolitanization" of a population, making our social and economic organization more complex and interdependent, will result in a further elaboration of governmental functions and increased government intervention in all aspects of American life, including business activities.

This article has focused entirely on the outlook in total population of the world and of the United States. Many other significant changes in the *composition* of the population are in prospect. These changes will also have important implications for the business community.

The business community has been inclined, with good reason, to view population changes as possessing essentially long-run implications. It has been recognized for some time that population changes have important implications for economic activity in general and specific businesses in particular. But it has been believed that population changes were of a long-run character, setting up irresistible but imperceptible influences, glacier-like in character. With the great fluctuations in the birth rate over the past several decades, however, and with the tremendous decreases in the death rate throughout the world, population changes are increasingly having significant implications for business even in the short

ra

ta

CO

Bu

be

Wa

ch

The conditions that direct the order of . . . the living world . . . are marked by their persistence in improving the birthright of successive generations. They determine, at much cost of individual comfort, that each plant and animal shall, on the general average, be endowed at its birth with more suitable natural faculties than those of its representatives in the preceding generation.

-Francis Galton
INQUIRIES INTO HUMAN FACULTY

The Small Business Corporation PROCEED WITH CAUTION

IN 1958, Congress provided what is practically a new form of business organization-a new legal vehicle for conducting business activity. It is known by various names: a Small Business Corporation, an Electing Corporation, a Subchapter S Corporation, or a Tax Option Corporation.1 This legal scheme has been heralded not as a new form for business organization but only as the traditional corporation plus certain striking tax features. Publicity related to the Small Business Corporation has promoted it as a device that will permit "business to select the form of business organization desired, without the necessity of taking into account major differences in tax consequences."2

Much that has been written about the Small Business Corporation has dealt almost exclusively with its federal tax aspects. This was to be expected, since the organizational device was developed in congressional committees charged with tax legislation and was designed

to give tax relief in certain situations. As a result, the scheme was seized upon by some as the great panacea for federal income tax liability. It was ballyhooed as a gimmick by which the taxpayer could rid himself of the curse of double taxation and gather to himself the golden fruits of capital gains and fringe benefits. There seems to be no doubt that a good selling job has been done on the Small Business Corporation. The number of corporate charters authorized in California during January, 1959 exceeded that of any previous month in the state's history; the same was true of February and March, 1959.3 It is, of course, impossible to know just how much of this upsurge in corporate formation was due

¹ This form of business organization will be referred to throughout this article as a Small Business Corporation or as an Electing Corporation. The traditional corporation will be referred to as an ordinary corporation.

² Technical Amendments Act of 1958, Report No. 1983 of the Senate Finance Committee, 85th Cong., 2d sess. (Washington: U.S. Gov't Printing Office, 1958). John E. Anderson in Trusts and Estates (February, 1960), p. 96.

Mr. Milroy is Professor of Accounting, School of Business, Indiana University.

to the advent of the Small Business Corporation and its counterpart, the Small Business Investment Corporation. However, there appears to have been little else on the business scene that would have caused such a marked increase.

Certainly the general impact of the law is that this new legislative scheme permits a small business corporation to be taxed as a partnership. It is well recognized that a partnership, as such, is not taxed at all, and that the firm's taxable income bypasses the partnership itself and is taxed only to the partners in their individual and separate capacities. The implication is that entrepreneurs who choose the Small Business Corporation as a form of doing business have the same tax obligations and responsibilities as partners; in addition, they obtain all of the advantages incident to the corporate form. In other words, a Small Business Corporation will enjoy all of the corporation's advantages but none of its tax disadvantages.

These implications, which may be inferred from the Senate report and much of the writing on the subject, are generally valid, but they do not point out some hidden dangers. There are still many unanswered questions about the general and tax effects of the Small Business Corporation. Precisely what it is and how it will work out must await further rulings, litigation, and perhaps additional legislation. There has been, however, sufficient debate and discussion of this business organizational device to permit a sober evaluation of its attributes and characteristics.

This new form of business organization is unique; it lacks many of the characteristics of a partnership and also many of the character-

⁴ For example, Congress found it necessary to clarify the statute creating the Small Business Corporation a year after the initial enactment. The Commissioner had ruled that joint owners, owners by the entireties, tenants in common, and those holding stock as community property constitute "several" owners in counting the number of shareholders. Congress overrode this holding by enacting sec. 2(a) of 73 Stat. at L. 699 (1959), directing that such concurrent owners should be counted as one shareholder with respect to taxable years beginning after December 31, 1959.

istics of a corporation. Once we stop thinking of this new scheme as a corporation with modifications or as a partnership with modifications, we are in a better position to consider its advantages and disadvantages. In considering the form of organization for a new enterprise or for converting one already established, it seems logical and desirable to evaluate the available forms of organization both in terms of those attributes that are considered desirable and those that should, if possible, be avoided. A comparative analysis of this new organizational device with more conventional forms will be my subject.

First, we should know the salient characteristics of the Small Business Corporation as provided for by statute:

- 1 It is a domestic corporation.
- 2 It is not a member of an affiliated group (as defined for consolidated return purposes).
- 3 It does not have more than ten share-holders.
- 4 All shareholders are individuals or estates.
 - 5 No shareholder is a nonresident alien.
- 6 The corporation has only one class of stock.
- 7 The corporation has elected to become a Small Business Corporation, and all of its shareholders have consented to this election.
- 8 The corporation does not derive more than 80 per cent of its gross receipts from sources outside the United States.
- 9 The corporation does not have more than 20 per cent of its gross receipts from socalled personal holding company income (rents, royalties, interest, dividends, sales or exchanges of stock or securities, and so forth).

A word of caution is necessary. This evaluation of the Small Business Corporation must be reasonably general and, so far as possible, nontechnical. There is always danger in attempting this. Sophisticated businessmen are well aware that tax problems require the most painstaking study and expert advice, not always easy to obtain. Furthermore, tax counsel must almost always be as individualized as the

fo

advice of the physician or lawyer; no two cases are the same. In addition, tax planning is a continuing process; it must be kept at least abreast of continually changing and evolving developments. All that is intended here is a very general examination of some considerations that should be taken into account in evaluating the Small Business Corporation as a form of business organization.

An additional point needs emphasis. This article attempts to evaluate the Small Business Corporation as a legal form of business organization in an over-all sense. It is not limited to tax aspects. Unless business is to be operated for the sole purpose of avoiding taxes, it is highly important to consider all attributes of the legal form of organization. There is not much sense in organizing a business in a form that will minimize taxes if doing so stifles its ability to take advantage of profitable growth opportunities or limits the owners' ability to dispose advantageously of an interest.

EIGHT CONSIDERATIONS

Perhaps the most sensible approach to our problem is to consider the attributes that make up the over-all concept of a form of business organization:

- 1 How much difficulty will be involved in launching the organization?
- 2 How much complexity is involved in the organization itself?
- 3 Is the organizational scheme conducive to transferability and salability of ownership interests?
- 4 How well does the organizational form fit into estate plans and other arrangements for ultimate disposition of property interests?
- 5 Can capital and/or profits be withdrawn without undue difficulty?
- 6 What is the relationship of the organizational form to the growth potential of the business and to the attraction of necessary personnel?
- 7 What is the extent of the owners' liability for firm debts?
 - 8 How great is the tax burden?

How much difficulty will be involved in launching the organization?

The legal formalities of going into business for the sole proprietor are practically non-existent. Of course, he may have difficulty in acquiring sufficient capital and recruiting personnel, but there are no required legal formalities. He puts himself in business and that's it. This simplicity is due primarily to the fact that he is not associating himself with others in an organization; definition of rights and obligations is, therefore, not required.

But when two or more entrepreneurs organize for business purposes, they must be concerned with definition of their relationship. Historically, there have been two principal forms of organization: the partnership and the corporation. Now, the Small Business Corporation offers a third choice. It should be observed that all of these forms may be available to the sole proprietor through the use of dummy shareholders in the corporate setup and controllable partners (a wife, for example) in the partnership.

The partnership requires an agreement either oral or written, actual or implied. There are, no doubt, hundreds of partnerships where the agreement is oral and simple. In a great many cases, this may be an innocent but dangerous arrangement. There are numerous difficulties associated with partnerships, such as valuation and amount of capital contributions, division of profits and losses, buy-out agreements, sale of interests including methods of determining good will, accounting methods and the tax implications flowing therefrom, and arrangements relating to successors in interest in the event of death or withdrawal. These necessitate the careful drafting of partnership agreements by one who is familiar with both partnership law and the relevant tax statutes. If one is going to participate in any but the very simplest of partnerships, he will be well-advised to have his rights and obligations clearly defined in a formal document.

The articles of incorporation and the resulting corporate charter for the ordinary business corporation must, of course, be formalized in a written instrument. For the small business, it would appear a tossup whether more or less formal legal draftsmanship is required to launch *properly* the legal life of a partnership or a corporation.

Proper organization of the Small Business Corporation is certainly no less formidable and probably is more complex than the organization of either the partnership or the ordinary business corporation. Not only must charter be secured from proper state authorities in the usual manner but an election to be taxed as a Small Business Corporation must be filed with the Director of Internal Revenue, together with consents to the election on the part of each stockholder. The requirement of individual stockholder consents to the election would seem to require additional arrangements. If a new shareholder comes into the picture, he must file his consent within thirty days or the corporation loses its small business status with possible undesirable results.⁵ This requirement, therefore, may prevent the sale of stock (even a single share) to a purchaser who does not agree to consent. Otherwise, a single shareholder may be in a position to upset the plans of the others; he may be able to block the will of the majority.

In the absence of an agreement controlling the sale of the stock, it would appear that some important legal attributes of the corporate form have been lost. It has generally been considered that one of the advantages of the corporate form is the ability of the majority shareholders and their elected directors to push through their policies without being hamstrung by minority interests. Even with an agreement restricting disposal of stock, there are possible additional problems as to the type of appropriate legal action for enforcing such a contract—whether by injunction or suit for damages (if the latter, how are the damages

to be measured?). Without a restrictive agreement as to sale of stock, it would appear that the shareholders of an electing Small Business Corporation are in some other respects, as well as in matters of taxation, clothed with powers like those of general partners.

Not only is a consent required of each shareholder in order to make the corporation's election to be taxed as a Small Business Corporation effective, but similar unanimity of shareholder consent is required if the corporation wishes to revoke the election. Here again, there ought to be some binding supplementary arrangement if firm policy is to be controlled by the majority stock.

Shareholders in the Small Business Corporation should arrange not only to protect themselves from an "improper" inter vivos disposal of shares but also to control the situation in case of a shareholder's death. An executor or administrator may not consider a consent in the best interests of the beneficiaries of the estate. Or he may be uncertain and, in order to protect himself, may wish to secure direction as to proper action from the probate court -and all of this within thirty days. It would appear that the minimum acceptable protection for surviving shareholders would require a provision in each shareholder's will (assuming, of course, that they all have wills) directing the executor to consent to the election within the proper time.

At this point, it may be well to note that in the absence of a direction in the will, the executor may not find it advantageous to the estate or its beneficiaries to consent. Apparently under the law and Commissioner's Regulations, the deceased stockholder's share of undistributed earnings on which he has paid tax can be distributed only to *him* tax-free, not to his transferee, including his administrator, executor, or estate. Thus the executor, in order to prevent the distribution of what to him would be a taxable dividend, might refuse to consent, thus in effect "locking in" all undistributed but taxed earnings up to that time.

⁵ This seems to be a really unnecessary requirement. A purchasing shareholder may reasonably be required to inform himself of an existing election by the corporation before purchase of his shares. An executor, heir, legatee, or donee could be reasonably required to take the shares subject to the corporation's election.

⁶ Merely placing it in trust will cause the loss of the election, since only an individual or an estate may be a shareholder of the corporation.

⁷ 26 C.F.R. Regulation 1.1375-4(e) (1960 ed.). "A shareholder's right to nondividend distributions under this section is personal and cannot in any manner be transferred to another."

The existence of a firm having a charter and calling itself a corporation would generally imply that the firm was a corporation. But in the Small Business Corporation, the rights and powers of individual shareholders in relation to federal tax liability are so broad that the organization, in this respect, might well be called a partnership in corporation clothing. This may be all to the good. It may be the intention of all concerned that each shareholder shall have such wide powers. But the participants should not be deceived by the corporate form of their organization; they should know what they are getting into. They will then be in a better position to judge their prospective associates.

It seems safe to conclude, on the basis of these observations, that a careful analysis with full exploration of all legal implications must be made before a partnership shifts to the corporate form and elects, or before a new business selects the corporate form followed by an election to be taxed as a Small Business Corporation. It seems clear that minimum formality of legal arrangements is not an advantage of the Small Business Corporation.

How much complexity is involved in the organization itself?

It is probably true that the informality frequently seen among partners makes possible the most direct and simplest form of managerial policy formation. On the other hand, proper operation of a corporation requires the formality of directors' and stockholders' meetings with records thereof. Shareholderdirectors in small corporations sometimes wink at these requirements, but in doing so they risk being caught up short for lack of proper authorization for their actions with respect to contracts, dividends, salaries, and similar items. While the state may be lax in insisting upon required formalities, disgruntled shareholders may seize upon this indifference to the painful embarrassment of directors and officers. A Small Business Corporation is still a corporation in the eyes of the state of its organization and of the states in which it operates, and all necessary requirements of proper operation should be complied with.

Internal policy determination in the Small Business Corporation is a critical problem in another very important area. The election to become a Small Business Corporation is not necessarily permanent. The firm may revertintentionally or accidentally-to the status of an ordinary corporation. An intentional revocation is effective for a particular taxable year if made by the corporation during the first month of such year with all shareholders consenting. A revocation made after the first month is not effective until the first year after the year of revocation. A termination of Small Business Corporation status, other than by election, occurs when the corporation fails to maintain one of the requisites of such status: for example, acquiring more than ten shareholders, a trustee, a nonresident alien or a nonconsenting individual or estate as a shareholder, or by the issuance of a second class of stock. The loss of status by nonelection is effective for the taxable year during which the unpermitted event

The possibility of inadvertent loss of Small Business Corporation status poses serious problems. For example, assume that A, B, and C are the sole and equal shareholders of Small Business Corporation X, which is on a calendar tax year. Shareholder A dies late in a prosperous year. Under the terms of A's will, title to the stock passes to a trustee, and the Small Business Corporation status is lost for that and subsequent years. This, of course, means that the corporation's income for that year is taxable to the corporation, and also, to the extent it may have been distributed during the year, to the shareholders as ordinary dividends. Furthermore, if the corporation had, at the close of the preceding year, undistributed income that had been taxed to shareholders this would again be taxed to the shareholders as ordinary dividends to the extent distributed in the current year or any year thereafter.8

^{8 26} C.F.R. Regulation 1.1375-4(a) (1960 ed.). "If an election is terminated... the corporation may not, during the first taxable year to which the termination applies or during any subsequent taxable year, distribute previously taxed income of taxable years prior to the termination as a nondividend distribution pursuant to this section."

It is also important to note that money distributions by electing Small Business Corporations apply against the corporation's profits on a last in-first out basis including those of the year in which the distribution is made.9 Thus, if an electing corporation makes a distribution to shareholders during 1960, it is distributing 1960 profits even though it had undistributed profits, previously taxed to shareholders, at the beginning of 1960. This means that if Small Business Corporation status is inadvertently lost, any undistributed profits at the beginning of that year, although previously taxed to shareholders, can only be distributed as ordinary dividends. It would appear that it would behoove the electing corporation never to end a year with any of that year's profits undistributed-a task likely to perplex accountants and financial managers.

The above rules seem harsh, but they are not necessarily an unmitigated evil. In fact, perhaps the best case for the electing Small Business Corporation is that it offers considerable flexibility. By careful timing and financial management, it appears possible to shift into and out of the small business special status to tax advantage; such steps must, however, be taken with care and full appreciation of all factors involved, including whatever may be the current status of the taxing statute and its interpretations. It is also important to observe in this connection that, once Small Business Corporation status is lost, a second opportunity to elect is not available for any taxable year prior to the fifth taxable year, which begins after the first taxable year for which such termination is effective-unless the Commissioner consents. It may, of course, be expected that the Commissioner's consent will not be granted where there is an indication that change of status was prompted primarily to gain tax advantage.

It would appear that particularly careful internal financial and legal management will be required if the Small Business Corporation form of organization is to serve desired ends. It does not appear that the use of the Small Business Corporation gains anything over the ordinary business corporation in simplicity of internal operation. Both types have more formal requirements in this respect than the general partnership.

Is the organizational scheme conducive to transferability and salability of ownership interests?

The ease with which an ownership interest in an organization can be transferred at the best available price—in short, ready marketability -is a significant but not always vital attribute of such interest. In this area, interests in the ordinary business corporation would seem to have the better of it. The sale of corporation stock is simple, as a rule, and involves a minimum of well-understood steps. Barring the possibility that the corporation may be collapsible,10 the sale of stock in the ordinary business corporation is the sale of a capital asset. The sale of a partnership interest is not so simple. A partner may sell his interest, but whether his purchaser obtains an interest in an organization that will continue or be liquidated will depend upon whether or not the remaining partners will accept him as a partner. A partnership is based fundamentally upon the contract among the partners; a stranger may not become a party thereto without the consent of all concerned. The purchaser of a partnership interest may end up with no more than a right to have the business liquidated.

On the other hand, the purchaser of a partnership interest may have an advantage over one who buys stock in a small corporation. This advantage stems from certain provisions of the tax law that may permit the purchaser to reflect his purchase price in a revaluation of his share of the partnership assets. In a simple case it works like this: A has a \$100,000, one-third interest in partnership property that cost \$300,000. Because of appreciation, however, the property is presently worth \$480,000. A sells his partnership interest to B for \$160,000,

⁹ 26 C.F.R. Regulation 1.1375-4(b) (1960 ed.). "... a distribution of previously taxed income may occur only if during its taxable year the corporation makes such money distributions in excess of its earnings and profits for such taxable year."

¹⁰This term usually means that the corporation was organized or used for the purpose of converting what would have been ordinary income to capital gain.

or one-third of present value of all partnership property. If the proper elections are or have been made by the partnership, B can have the cost basis of partnership property "stepped up" to reflect his purchase price. On a subsequent sale of the appreciated property by the partnership, B will not realize any gain on the sale of the property corresponding to his onethird interest. This would not be true if A sold B a one-third interest in the stock of a corporation having property similarily appreciated in value. There is no way in which B can cause the cost basis of the corporation's property corresponding to his interest to be stepped up in order to reflect his purchase price. If the company is an ordinary business corporation, it will be taxable on any gain realized on the sale of property; if it is a Small Business Corporation the gain will pass to the shareholder, and one-third of it will be taxable to B no matter what the purchase price of his stock interest.

The point previously discussed relating to the necessity that consents be filed within thirty days by new shareholders in order to keep the qualification as a small business corporation alive requires re-emphasis at this point. Because of this, it would seem reasonable to conclude that the market for Small Business Corporation stock is likely to be somewhat limited. Every seller must find a purchaser either in a present shareholder or a new shareholder who will agree not only to bind himself, but also his transferees, not to dispose of the stock without the acquiescence of the remaining shareholders, by will, gift, or sale in such a way that the election would be lost.

How well does the organizational form fit into estate plans and other arrangements for ultimate disposition of property interests?

One of the serious problems that plague small business relates to business continuation plans. Most owners of successful small businesses have faced the question, "What happens to the business when I die or am forced to retire?" One way to proceed—perhaps the most common—is as if death and/or infirmity were not inevitable. Such a procedure may result in dis-

advantageous forced sale of the business at death or forced retirement, lack of protection of the widow and children, and a generally unfortunate situation.

A point for consideration here relates to the mandatory financial structure of the electing Small Business Corporation. It can have but a single class of outstanding stock, which inevitably means common stock. Consider, in this connection, John Doe who wishes to plan his estate so as to place the control of his prosperous corporate business in the hands of his two sons with adequate profit incentive for its further development. He also wishes to give his two daughters and his wife, if she survives him, a preferential and limited participating interest in the profits of the concern with ability to participate in control if profit distributions are not forthcoming. A possible answer lies in a bequest of common stock to the sons and participating preferred stock to the daughters and the widow with a right to vote if a certain number of preferred dividends are passed. The plan contemplates that the daughters' and/or widow's stock interests should be placed in trust with remainders to grandchildren. These arrangements are not possible with the Small Business Corporation because it cannot have more than one class of stock and because the trustee will not be a proper shareholder. It may, of course, be possible to accomplish the same or nearly the same objectives in other ways, even though the business is organized as a Small Business Corporation. It would seem impossible to deny, however, that some elements of flexibility possessed by the ordinary business corporation have been lost.

One of the better ways of planning for death or retirement in the small business firm is to make, so far as possible, arrangements for future sale of a business interest. A variety of buy-out agreements and similar arrangements are possible. Frequently, the most satisfactory market for such an interest lies with associates or employees. Almost always, however, there is the problem of where the money for the purchase will come from. Life insurance offers a possibility, but this kind of funding costs money. Arrangements for installment sales of stock interests may be made so that purchasers

may defray the payments out of business profits.

The partnership is sometimes a particularly advantageous form of organization in these situations. Under certain provisions of the Internal Revenue Code, it is possible for partners to continue to receive a share of firm profits or a salary as partners even though they have retired.11 Their estates or other successors in interest may, for tax purposes, be considered as partners for the purpose of receiving a share of profits or payments considered as salary, even though they are not, of course, actual partners. Assume, for example, partner A dies after A and B have agreed that in the event of the death of one of them his successors in interest may continue to draw a certain percentage of firm profits for a certain number of years or that his successors in interest will draw a "salary" for a specified number of years. This share of profits or "salary" will be, in effect, a payment for the partnership interest of A. The point is that partner B may acquire a substantial part of A's interest with dollars on which he has paid no income tax, since the payments to A's successors in interest are either a share of profits, taxable to the successor and not to B, or "salary" deductible by the firm in computing profit and, as such, taxable to A or his successor.

I am not arguing that the partnership makes the disposal of business interest easier or more advantageous in all situations. It appears, however, that the Small Business Corporation does not rank very high when one comes to a consideration of the inevitable problem of arranging for a disposal.

Can capital and/or profits be withdrawn without undue difficulty?

Perhaps the most frequently condemned aspect of the electing Small Business Corporation is the possibility of locked-in profits on which tax has been paid by the individual shareholders. The income of the Small Business Corporation is automatically taxable, on a pro rata basis, to its shareholders as of the close of the corporation's tax year. There is no requirement that such amounts be paid to or

withdrawn by the shareholders. In this respect, the situation is closely analogous to the partnership.

If, however, the corporation loses its status as a Small Business Corporation before these profits are withdrawn, any subsequent distribution of them are taxable to the shareholders as ordinary dividends despite the fact that the shareholders have already paid tax once on these same earnings. On the other hand, this is not true with the partnership; profits may be withdrawn at any time and no tax will be involved. The withdrawal of profits in the ordinary corporation always results in a taxable dividend.¹²

In a consideration of the ease with which capital may be withdrawn from the business organization, the weight is all on the side of the partnership. Any distribution by a partnership can only result in taxable income if the distribution is in cash and is in an amount in excess of the cost basis, plus undistributed profits, or the partner's interest. If property¹³ is distributed no income is recognized even though the distributed property has a greater fair market value than the cost basis of the partner's interest in the partnership. In most situations, this allows freedom of inflow or withdrawal of capital without running the risk of tax liability.

In the case of the ordinary corporation, distribution in complete or partial liquidation results in recognized gain or loss to the extent that the cash or the fair market value of the distributed property differs from the cost basis of the shareholders' stock. The cost basis of shareholders' stock in a Small Business Corporation is increased by undistributed earnings that have been taxed to the shareholder. Liquidating distributions having a fair market value differing from this cost basis will result in recognized gain or loss.

What is the relationship of the organizational form to the growth potential of the business and to the attraction of necessary personnel?

¹² The dividend can be excluded to the extent of \$50 and is subject to the 4 per cent dividend credit.

¹³ This would also include certain receivables or appreciated inventory items.

¹¹ I.R.C. Sec. 736, 26 U.S.C. (1958 ed.).

Perhaps not all business organizations are launched with the intention that the firm should grow and expand. A group of investors may be satisfied to construct an apartment house or an office building intending that the property shall be held as a single investment with profits being distributed as they accrue. On the other hand, it seems probable that most new enterprises are undertaken with the expectation that they will prosper and expand. Certainly changes in organizational setups have been effected in many instances with the primary objective of facilitating additional growth: examples are the many shifts from the sole proprietorship to the partnership and from the partnership to the corporation.

The problem of adequate customer demand need not concern us here. We are dealing with the problem of whether a firm with growth potential has the form of organization that will permit or facilitate this growth. In addition to economic justifiableness, the principal requisites for business growth are two—capital and competent management. Let us evaluate the available forms of business organization in terms of their ability to produce these requisites.

Adoption of the corporate organization form is almost a prerequisite to the accumulation of substantial business capital. The corporation limits liability and restricts the agency powers of the association members, thereby appealing to almost innumerable owners of venture capital; corporate interests can be tailored to fit the financial tastes of a wide range of participants.

The ability of the modern corporation to raise large amounts of capital is closely associated with its ability to attract effective management. In order to develop the management team with effective division of labor, there must be adequate provision for control and definition of responsibility. This is, perhaps, internally possible in the partnership, but as a firm grows the right of a partner to participate fully in the management and to represent it to outsiders is a serious drawback. Actually, the partnership appears to serve adequately only in small or highly specialized firms.

Partnership equity capital is obviously limited to that which the partners are able to provide. In small firms, the partners' financial "all" is frequently sunk in the business. The danger and inconvenience of a large number of partners' participating in the management, to say nothing of the partners' unlimited liability, seriously limits the firm's ability to accumulate capital for substantial growth or to effectively organize and define management authority and responsibility.

The Small Business Corporation is limited by statute to ten or a lesser number of shareholders. Furthermore, a shareholder may not be other than an individual or an estate. Each shareholder must consent to the taxation of the organization as a Small Business Corporation. These provisions, it is submitted, mean that the Small Business Corporation is to stay small—its growth potential is definitely limited by the form of its organization. There is, of course, the possibility of revoking the election when the potentiality for growth becomes imminent.

What is the extent of the owners' liability for firm debts?

It is well known that general partners have unlimited liability for partnership debts and that shareholders' liability normally does not extend beyond a proper capital contribution to the corporation. To the extent that the limited shareholders' liability is a factor, there is nothing to choose between the ordinary business corporation and the Small Business Corporation. The partnership, of course, comes in a poor third in this respect. On the other hand, the insistence of its creditors that officers and principal shareholders guarantee the obligations of the small shaky corporation may put the corporation more on a par with the partnership.

How great is the tax burden?

The tax advantages claimed for the electing Small Business Corporation are as follows:

1 There is no tax whatever at the corporation level on taxable income. The hated double tax—first on the corporation and then on dividend distributions to the shareholders—is thus avoided.

Tax Liability Comparisons, Corporation Income Not Distributed

Total Taxable Income (1)	Ordinary Corporation		Small Business Corporation				
	Tax Payable (2)	Tax to 331/4% Shareholder (3)	331/3% of Income to Shareholder (4)	Total Income (corporate income plus \$15,000 salary from corporation) (5)	Tax to Shareholder (6)	Tax Due to Share of Corporate Income° (7)	
\$ 10,000	\$ 3,000	\$ 1,000	\$ 3,333	\$ 18,333	\$ 3,600	\$ 984	
20,000	6,000	2,000	6,667	21,667	4,691	2,075	
30,000	10,100	3,367	10,000	25,000	5,888	3,272	
40,000	15,300	5,100	13,333	28,333	7,201	4,585	
100,000	46,500	15,500	33,333	48,333	17,310	14,694	
130,000	62,100	20,700	43,333	58,333	23,298	20,682	
200,000	98,500	32,833	66,667	81,667	38,284	35,668	
300,000	150,500	50,167	100,000	115,000	62,340	59,724	

[°]Column 6 less \$2,616.

2 Net capital gains realized by the corporation are passed through to the shareholder; in the ordinary corporation, capital gains become a part of its earnings and profits and, when distributed to the shareholders, are ordinary dividends.

3 The corporation's operating losses become trade-or-business losses in the hands of the shareholders and hence may be carried backward (but not prior to January 1, 1958) or forward as deductions from the shareholders' income. Such losses are, of course, not then available for carrying backward or forward by the corporation.

4 All or some of the corporation's shareholders may be employees of the corporation and as such may participate in the corporation's fringe benefit program.

TAX CONSIDERATIONS

On the basis of the analysis presented so far, the Small Business Corporation's claim to consideration as a form of business organization rests largely, if not entirely, on alleged tax advantages.

Avoidance of Double Taxation

It is difficult to generalize about double taxation because of many combinations of circumstances that must be taken into account. Included in the variables are the effects of graduated rates on individuals and, to some extent, on small corporations. Similarly, the facts about the individual shareholders' tax situation, particularly with respect to other income, deductions, and losses, are very important. While no complete generalizations seem feasible, it is possible to illustrate some of the determinants that should be taken into account. The illustrative analysis is based on the computations of tax liability appearing in Table 1. It is important to remember that the results obtained are based on a single case with an assumed set of specific facts. These would probably not be identical in any two situations.

The facts in the case are as follows: Three individuals, having worked as employees for several years, decide to launch their own business. Each has earned an annual salary of \$15,000, and each expects to take that amount from the new enterprise. Each man is married, files a joint return, and has four tax exemptions (\$2,400). Each uses the standard deduction of \$1,000.

The three men launch Y Corporation and take ownership of the stock jointly with their wives. Column (1) in Table 1 shows various levels of corporate income after deduction of

Tax Liability Comparisons, Corporation Income Distributed

Total Taxable Income (1)	Corporate Tax (2)	Corporate Aftertax Income to Shareholders (3)	Corporate Income Distributed to 331/4% Shareholder (4)	Total Shareholder Income (corporate income plus \$15,000 salary from corporation) (5)	Tax to Shareholder	
					On Actual Income (6)	Including Share of Corporate Tax (7)
\$ 10,000	\$ 3,000	\$ 7,000	\$ 2,333	\$17,333	\$ 3,181	\$ 4,181
20,000	6,000	14,000	4,667	19,667	3,794	5,794
30,000	10,100	19,900	6,633	21,633	4,384	7,751
40,000	15,300	24,700	8,233	23,233	4,864	9,964
100,000	46,500	53,500	17,833	32,833	8,437	23,937
130,000	62,100	67,900	22,633	37,633	10,566	31,266
200,000	98,500	101,500	33,833	48,833	16,197	49,030
300,000	150,500	149,500	49,833	64,833	25,277	75,444
200,000	98,500	101,500	33,833	48,833	16,197	49,03

the shareholders' salaries as an expense of the corporation.

First case: If the Y Corporation is an ordinary business corporation, the tax to each individual shareholder on his \$15,000 salary will be \$2,616. This is, of course, the same as his tax liability before becoming associated with Y Corporation. If the corporation has \$10,000 of taxable income, the corporate tax will be \$3,000, or, in effect, \$1,000 per shareholder, Columns (2) and (3), Table 1. On the other hand, if the corporation elects to be a Small Business Corporation, the corporate income will be taxable to the shareholders (\$3,333 to each) and each shareholder's individual tax will be \$3,600 or \$984 more than he would have paid if the business were organized as an ordinary corporation, Column (6), Table 1. Thus, the comparison is between the \$1,000 corporate tax per shareholder and the \$984 additional tax if the shareholders are taxed on the corporate income.

It will be observed that the shareholders are generally better off to have the corporation's entire income taxed to them than to have the tax absorbed by the corporation. There is a slight contrary effect of \$75 at the corporate level of \$20,000 income. The tax savings are not particularly large, but this observation remains true until the corporation's income reaches \$130,000; after this point, a reverse trend sets in. This reversal is due to the rising individual rates while the corporate rate is approaching the ceiling of 52 per cent.

Second case: In the first case, it was assumed that the corporation distributed none of its income to shareholders. This would not affect the tax if an election to be a Small Business Corporation were in effect, but aftertax earnings of an ordinary business corporation are taxable to shareholders as dividends when distributed. If the corporation distributes all of its income after paying its own tax, the effect will be to place an additional burden on the shareholders.

Table 2 shows that the tax on each shareholder would be \$3,181 if the corporation distributes the \$7,000 remaining after paying \$3,000 tax on its \$10,000 income. This, in effect, makes each shareholder's burden \$4,181 (his own tax of \$3,181 plus his \$1,000 share of the corporate tax). This adverse effect is true at all levels of corporate income shown in the tables. [Compare Column (7), Table 2 with Column (6), Table 1].

There does not seem to be much doubt about a choice between the ordinary business corporation and the Small Business Corporation in terms of avoidance of double-tax liability. The advantage belongs to the Small Business Corporation. This also appears to be true even where the income of the ordinary business corporation is not distributed to its shareholders—but not to so great an extent. In addition, failure to distribute may involve the ordinary business corporation in such troublesome tax risks as a

penalty tax for surplus accumulation beyond the reasonable needs of the business and special scrutiny of shareholders' salaries to see if they are not, in reality, dividend distributions.

Despite the striking advantage of the Small Business Corporation over the ordinary corporation in avoiding onerous double taxation, it must be remembered that the partnership offers the same advantage.

Capital Gains Pass-Through

Net capital gains are not taxed to the Small Business Corporation; they pass directly through to the shareholders. This is equally true with the partnership. In the ordinary corporation, on the other hand, capital gains are taxed to the corporation at 25 per cent. This gain becomes ordinary income when distributed in dividends to the shareholders and is taxable to them at ordinary rates. This passthrough of capital gains gives a definite advantage to the Small Business Corporation over the ordinary corporation. Election of Small Business Corporation status, prior to the sale of all or a substantial part of its operating assets consisting of depreciable property or real estate, may be of particular advantage. Any net gain will be treated as a capital gain. Even though a corporation has not previously elected to be a Small Business Corporation, it may find it advantageous to do so before a profitable sale of a significant part of its fixed assets.

A word of caution here is important. The Commissioner may take the position that an election to be a Small Business Corporation just prior to such a sale should not be allowed unless supported by a business purpose other than the tax advantage.

Operating Losses to Shareholders

If an electing corporation has an operating loss, it is distributed to its shareholders and thus may be carried back three years and forward five. It is claimed that this is an advantage for newly organized corporations that are likely to experience early losses of such magnitude that subsequent profits within the five-

year carry-over period will be inadequate to absorb them. More important, however, is the fact that the shareholder may be able to offset the corporation's losses immediately against his present or past ordinary income that may have been taxed at high rates. Generally, the same advantage may be obtained by organizing the business as a partnership, since partnership operating losses pass through to the shareholders.

Fringe Benefits

It cannot be denied that employees get many tax advantages not accruing to individual proprietors or partners. Group life insurance, pension and profit-sharing plans, health and accident insurance, wage continuation plans during illness, and the like may make it desirable for business owners to become employees of their own enterprises through incorporation and election of Small Business Corporation status. There is only one drawback. It appears that forthcoming legislation may not permit shareholders of a Small Business Corporation to be treated as employees for fringe benefit purposes. Obviously, such an enactment would eliminate an important reason for incorporating.

Tax Years

It appears that, under present law, the realization of income can be postponed to some extent by converting an existing partnership or eligible corporation to an electing Small Business Corporation. Thus if a partnership and its partners are on a calendar-year tax basis an electing corporation could be organized as of, say, July 1. Thus, half a year's profit would be taxed to the partners (January to July). The profit of the electing corporation would not be considered distributed to the shareholders until the end of its taxable year-June 30 of the following year. The partners would bridge one year in which they would be required to report only half a year's income, thus saving some taxes by getting into lower brackets. This scheme used to be worked by organizing a partnership with a tax year differing from the tax years of its partners. Its use was eliminated by the 1954 Code, which provided that partners could not thereafter have a different tax year from their partnership unless they could establish a business purpose to the satisfaction of the Commissioner. It seems possible that some similar legislation applicable to the Small Business Corporation may eventually be enacted.

Spreading Income

Incorporation makes the distribution of ownership in an enterprise easier through gifts of capital stock. For example, a parent can distribute stock ownership in the family corporation through gifts, in trust or otherwise, to his children. The law governing the Small Business Corporation does not change this, except that a gift in trust will revoke the election. The Commissioner has ruled, however, that gifts under the Uniform Gifts to Minors Act will not be considered as gifts in trust that would invalidate the election of the corporation. Gifts to minors in trust may, in some situations, be more advantageous than outright gifts under the gifts to minors acts. This may be particularly true where it is feasible to spread the stock among more than one trust for the benefit of the same person with provision for accumulation of the trust income.

The ability to spread business ownership among many family owners is not unique to the electing corporation. In 1951, after taxpayers had suffered a losing battle in the courts over the family partnership, Congress came to their rescue by providing tax recognition of partnership interests created by gift to donees or "trusts created for their benefit."

The Commissioner has also made it clear that the compensation for services paid to the donors employed by the corporation will be scrutinized to determine if they are unreasonably low, thus shifting an undue share of corporate income to the donees. The Commissioner thus may find himself in a position of arguing that the compensation of corporate officers is unreasonably low—quite contrary to his usual position.

RECENT legislation providing for the electing Small Business Corporation was designed to neutralize the principal tax effects among different types of business organizations. This was a valiant effort, but each type of business organization has certain side characteristics that make it more or less advantageous in particular situations. These may outweigh the tax considerations.

The Small Business Corporation is, in certain respects, so different from other types of business organizations that it is unique. Because of these considerations and substantial uncertainty as to the application of the statutes in certain respects, it is essential that careful analysis be undertaken before electing to become a Small Business Corporation. The decision to use this form should be made only after careful consideration of the law, together with an evaluation of the various aspects of each form of business organization in each situation, both from tax and nontax points of view.



LINEAR PROGRAMMING

AND MANAGEMENT

by R. Stansbury Stockton

LINEAR programming is one of a number of recently developed analytical techniques that have proved useful in solving certain types of business problems. These quantitative methods of problem-solving, like many employed in operations research, are based upon mathematical and statistical concepts. Therefore, they present a problem to the business executive who finds it difficult to translate what appears to be mathematical "jibberish" into meaningful terms. Under such circumstances, the businessman tends to equate his inability to understand with impracticality and, as a consequence, to dismiss these new techniques as a plot by mathematicians to confuse and befuddle businessmen! An adage says that "People would rather live with problems which they cannot solve than with solutions to those problems which they cannot understand."

Publications in the field of management science contain an increasing number and variety of business applications of these analytical methods, including linear programming. Furthermore, the number and scope of these applications can be expected to increase in the future as variations and refinements in the methods are developed. The question is how they can be applied in a specific business.

As for the mathematics involved, linear pro-

Mr. Stockton is Associate Professor of Management, School of Business, Indiana University.

gramming is one of the least complicated methods of quantitative analysis. For this reason, it provides a useful starting point for those who want to gain some degree of familiarity with modern analytical methods.

AREAS OF APPLICATION

The general class of problems to which linear programming methods may be applied is often referred to as allocation problems. Economists have traditionally defined such problems as those involving the allocation of scarce resources among alternative ends according to some criterion. Scarce resources for the business firm include capital, personnel, equipment, and materials. The various products and/or services that constitute the output of the firm represent alternative ends to which resources must be allocated. The criterion or objective, on the basis of which allocation decisions are to be made, may be some form of profit maximization or any other appropriate measure of desired performance.

Business managers always have been and always will be confronted with allocation decisions. The methods of analysis used to resolve these problems can and should be varied. For example, decisions based upon judgment and intuition may be satisfactory where the number of factors in the problem is limited and their relationships are clear. More difficult problems may require preliminary data collection, followed by the application of some formal method of analysis such as those characteristic of industrial engineering. The adequacy of these standard techniques falls off rapidly, however, as the number of variables in the problem increases. Linear programming is most appropriate for complex allocation problems that cannot be handled satisfactorily with conventional analytical techniques.

Many types of allocation problems are found in business, especially in the production or operations function. Some examples to which linear programming methods have been successfully applied are:

Determination of product mix. The types and quantities of products to be manufactured during the next planning period must be determined. The relative profitability of the items in the product line varies. The planned

pro sid cap due and pol "ro lim mix

ma

it s

Ble One fact vari pain pronati

mee Give tive which mun proc

resu

tory dem facil ule a over meet

resul

Maci ders group proce part of which chine

ment cost of

of ore

Shipp tion

facilit ties to ticipa product mix must take into consideration expected demand, the capability and capacities of production and distribution facilities, and management policies, such as policy on products carried to "round out the line." Given these limitations or restrictions on the mix, the solution should also make maximum economic sense, that is, it should maximize profits.

Blending or mixing problems. One or more products are manufactured by mixing or blending various ingredients; for example, paint, cattle feed, petroleum products. Many different combinations of these ingredients can result in end products that will meet all technical specifications. Given the availability and relative costs of the ingredients, which blend will result in minimum material cost per unit of end product?

Production scheduling and inventory planning. Given a seasonal demand and limited production facilities, what production schedule and planned inventory levels over the next planning period will meet expected demand and also result in minimum total cost?

Machine loading. A series of orders is to be processed through a group of machines. The cost of processing each order depends in part on the particular machine to which it is assigned. Limited machine capacity precludes assignment of each order to the lowest-cost equipment. What allocation of available capacity to the series of orders will result in minimum total processing cost?

Shipping and physical distribution problems. Goods are to be shipped from several production facilities having limited capacities to field warehouses that anticipate a given demand over the next planning period. Transportation and/or production costs vary among the alternative methods of supplying the warehouses. What physical distribution pattern will be both within the capacity and demand restrictions and will at the same time minimize total production and distribution costs over the planning period?

BASIC ASSUMPTIONS

All explicit analytical methods are based upon certain assumptions. Just as one must understand certain accounting conventions to use accounting statements intelligently, one must understand the basic assumptions of any quantitative analytical tool if it is to be applied properly. The two central assumptions in all linear programming methods are (1) linearity, and (2) certainty. Linearity means that all problem relationships can be expressed in the form of linear equations. The straightline method of depreciation assumes that capital value decreases at a linear rate. Break-even charts assume that both variable costs and revenue are linear functions. that is, that they increase in direct proportion to output. The term certainty indicates that no significant variations are expected in the numerical value for a problem factor. Average cost, for example, may be used in making a decision even though actual cost may vary slightly from this average. Statistical quality control, on the other hand, is based upon the expected variations in a process within the control limits, that is, a degree of uncertainty exists. Linear programming is an appropriate analytical tool only for those complex allocation problems that are characterized by both linearity and certainty.

The mathematical computational procedures of linear programming depend in part on which of the several programming methods is adopted for a particular problem. The basic or general case is called the Simplex method since it is based upon the simplex algorithm. Certain types of allocation problems may be solved by special, less complex, versions of the Simplex known as the Graphical and Transportation methods.1 In addition, there are a number of variations such as the so-called Index method, which yields only approximate solutions but with minimum computational requirements. All methods are in effect nothing more than effective search procedures that seek optimal solutions to allocation problems in which there are more unknowns than linear equations. In this sense, linear programming may be viewed as systematic trial and error in which the most promising shortcuts to a solution are indicated by mathematics rather than intuition and elbow grease.2

THE LINE EXECUTIVE

From a managerial standpoint, the most critical stages in a linear programming analysis are those of (1) framing or formulating the problem, and (2) interpreting and evaluating the results of the analysis. Active participation of the line executive, rather than the staff analyst, in these stages is important if the analysis is to lead to an effective decision.

¹ The detailed computational procedures for these methods are beyond the scope of this article. Those interested in them will find a list of references at the conclusion of this article.

² The elbow grease for problems of many variables may be supplied by a computer.

The formulation of a complex allocation problem within a linear programming format involves judgments as well as numerical data. The quality of both the judgments and the numerical data may have a significant influence on the solutions that evolve from subsequent computations. Managerial judgment is in fact an important source of data for problems involving major policy implications, such as the production and warehousing of seasonal products. The focal points of these "policy data" requirements normally are: (a) the determination of restrictions or constraints, and (b) the selection of an appropriate objective.

The purpose of restrictions in a linear programming problem is to place boundaries or limits on the number of alternative solutions. They restrict the mathematics to those solutions that are (1) feasible in the physical or technological sense, and (2) acceptable in terms of such other limits as may be imposed by customers, governmental bodies, union contracts, or company policies. Identification of restrictions is usually not difficult. Difficulties do arise, however, in efforts to quantify restrictions, especially those which are not technological in nature. Assigning numerical values to customer service policies, for example, sounds like a trying and even a dangerous task. Consider, however, these three points: (1) Such restrictions are real and are being assigned values on an implicit basis in making present decisions. (2) If explicit policy restrictions are required, no mathematician should be allowed to make them. (3) In many cases, only a few of these policy restrictions are critical and, even for these, a range of possible values rather than a single numerical value may be sufficient.

The selection of an appropriate, explicit objective function may also be troublesome. For example, is the use of a cost-minimization objective for a machine-loading problem consistent with over-all company objectives and policies? This objective may well be the most appropriate measure to use but it could lead to decisions inconsistent with both customer service and employment stabilization policies. Unguided mathematics can play treacherous tricks on the unwary manager.

A second major responsibility of the line manager in a linear programming analysis is the interpretation and evaluation of the results. There are few business problems in which all factors and the relationships between them can be stated completely and explicitly. Because of this, the mathematical solutions must usually be tempered by managerial judgment to take account of essentially qualitative factors such as the human and ethical aspects of the problem. Furthermore, the analysis may produce a range of possible solutions rather than a single best or optimum answer. This is quite likely to be the case where important restrictions or components of the objective function cannot be precisely defined. Here the final selection from among alternatives is clearly the responsibility of the line decisionmaker and not the analyst.

ROLE OF ANALYTIC METHODS

Perhaps the most severe task associated with the use of any quantitative method of analysis is that of maintaining these methods in proper perspective. Linear programming, for example, is a type of mathematical model that may be useful in the analysis which precedes managerial decisions concerning complex allocation problems. As such, it can play a useful role in the decision process. Managers have always used some quantitative measures, such as accounting data, as well as judgment in making allocation decisions. The "wonder drugs" of quantitative analysis modern such as linear programming can, if used properly, augment the judgment portion of the prescription for effective managerial action. They are not mathematical panaceas that, if taken in large doses, will cure all managerial headaches.

Selected Readings in Linear Programming

Bowman, Edward H., and Fetter, Robert B. Analysis for Production Management. Homewood, Ill., Richard D. Irwin, Inc., 1957.

Charnes, A., Cooper, W. W., and Henderson, A. An Introduction to Linear Programming. New York: John Wiley & Sons, Inc., 1953.

Churchman, C. West, Ackoff, Russell L., and Arnoff, E. Leonard. Introduction to Operations Research. New York: John Wiley & Sons, Inc., 1957.

Reinfeld, Nyles V., and Vogel, William R. Mathematical Programming. Englewood Cliffs, N. J.: Prentice-Hall, Inc., 1958.

Stockton, R. Stansbury, Introduction to Linear Programming. Boston: Allyn and Bacon, Inc., 1960.

FOUR IMPORTANT McGRAW-HILL BOOKS



By AUSTIN GRIMSHAW, University of Washington; and JOHN W. HENNESSEY, Dartmouth College. McGraw-Hill Management Series. Ready in July.

About 80% of this book is comprised of cases about decision-making problems in business, with special emphasis on human behavioral factors. The cases are diverse in the executive level, the size of the company, the type of industry, and the type of problem depicted. The remaining 20% presents readings pertinent to some of the principal administrative processes involved in the cases. Leadership, communication, organization, and executive development are among topics covered.

INTRODUCTION TO INVESTMENTS, New Third Edition

By JOHN C. CLENDENIN, University of California, Los Angeles. 515 pages, \$7.50

A thorough revision of a highly successful book. The author approaches the subject of securities investments from a personal or personal-family viewpoint. The scope of the coverage is wide—portfolio planning, the economics of securities values, the technical features of securities, securities values and analysis, and the investment characteristics of leading industries. In addition, chapters on life insurance, real estate, savings institutions, and investors' tax problems are included.



HEALTH INSURANCE

By EDWIN J. FAULKNER, President, Woodmen Accident and Life Company, Lincoln, Nebraska. McGraw-Hill Insurance Series. Ready in July.

A comprehensive description of the function of health insurance and its organization, methods, and techniques. Primary emphasis is on health insurance written by insurance companies, but other methods of providing insurance against loss due to disability are described so that the reader may better understand the entire field of private health insurance. There are many modern illustrative materials showing progress of the business since 1940.



By STANLEY VANCE, Kent State University. McGraw-Hill Management Series. Ready in May.

The subject of Business Games is becoming increasingly popular in Schools of Business Administration. Some Business Games require a computer, but Vance's does not. Vance's game is correlated with a "live" variable and uncontrolled barometer, the *Business Week Index*, and the market is divided realistically into unequal shares for each company. Other new approaches include stress on quantitative analysis, emphasis on the stock market quotation as a measure of success, and stress on the share of the market factor as an index of competitive vigor.



Send for Copies on Approval

McGRAW-HILL BOOK COMPANY, Inc.

330 West 42nd Street

New York 36, N. Y.

book notes and reviews

The experience of any moment has its horizon. Today's experience, which is not tomorrow's, has in it some hints and implications which are tomorrow on the horizon of today. Each man's experience may be added to by the experience of other men, who are living in his day or have lived before; and so a common world of experience, larger than that of his own observation, can be lived in by each man. (C. D. Burns, "The Sense of the Horizon")

PATTERNS AND PERSPECTIVES

EVERY AGE and every culture has its limits of knowledge. Its answers are limited by its questions. Ours is no exception; of this we are fast becoming aware. It even seems that our questions are fragmentary because they have become so departmentalized by the formal disciplines. Our questions, the discerning agree, desperately need to be more comprehensive, to have more perspective, and to be cast in more configurations. To be sure, many attempts are afoot to provide broader backgrounds in traditionally specialized programs and to increase the number of interdisciplinary projects. The academic discipline, however, that appears most consistent in approaching the problems of man and his society from some comprehensive perspective is contemporary anthropology.

In reading the cross section of recent and not-so-recent books in anthropology to be reviewed for this issue, we were struck by the facility with which the authors' patterns of thinking cut across the formal divisions of material. Not only do the physical and the cultural anthropologists display expected biases of approach, but within each and slicing across both are a variety of outlooks, in some cases fixedly opposed. Here in a microcosm is a pattern that could do much to improve our current state of affairs in knowledge, especially in healing the breaches among the natural sciences, the humanities, and the social sciences. There has, of course, been recent concern about these conflicts, particularly with the acrimonious debates between humanists and scientists-deplored in C. P. Snow's The Two Cultures and the Scientific Revolution and J. T. Wilson's One Chinese Moon.

Even within the limits of one division of the natural sciences. microphysics, ways of seeing and interpreting reality vary widely. This is the subject of a book that arrived too late to be included in our recent discussion of the new world-view in science but that is equally apropos here: PATTERNS OF DISCOVERY by N. R. Hanson (Cambridge, \$5.50). Hanson describes the historical case of Tycho and Kepler, who watched the same dawn and arrived at diametrically opposed physical explanations of the event. This should not be dismissed, says the author, by saying merely that one was wrong and the other, as eventually was proved by further observation and experiment, right. Actually, the direction and the design of later research were set by the kind of new conceptual patterning made possible by Kepler at this point. That is, he not only advanced understanding but also determined by his interpretations the direction of subsequent advance.

Hanson applies the Tycho-Kepler analogy to the current controversy over the uncertainty relations in quantum theory. (Since elementary particles sometimes behave like particles with mass and position and sometimes like waves, disturbances arising from the very nature of observation preclude at present any exact determination of their real nature. Our knowledge of them is now a statistical knowledge only, based on probability theory. Uncertainty relations is another term for the principle of indeterminacy announced by Werner Heisenberg: that it is not possible to measure accurately the position and the velocity of a particle at the same time and that the more accurately either can be measured, the less accurately the other can be measured.)

Just as the earlier physicists "could not, in their time, conceive of any such decisive solution" as proof by observation (that is, no means of accurately observing the phenomena was conceivable), so today no observation now conceivable can settle the issue between those who see the present uncertainty relations as a technical limitation only and those who see them as a limitation

in

Hei who

nen

in t

to t

rist Bol

tecl

sho

Hei

terr

nica

"me

nora

ditie

that

tion

lect

lar

pro

tion

be a

mat

resu

its

Ana

hec

port

I, p

RE CLAS

tic Rob Pa EN

Eug

EN Rich M Dan

IT Herr

TI

in principle. Such physicists as Heisenberg, Born, and Dirac, who see the dilemma as permanent and settle for indeterminacy in this area, cannot be reconciled to the view—held by such theorists as Einstein, De Broglie, and Bohm—that the limitation is a technical one only.

An additional development should be noted here. In spite of Heisenberg's refusal to see indeterminacy as temporary and technical and the resort to statistics as "merely a consequence of our ignorance of the precise initial conditions of the particle," he "argues that we need a fundamental equation for all matter, not just a collection of descriptions of particular elementary particles." He has proposed just such a new equation, which he says "is meant to be a generalized equation for all matter." And for the insight that resulted in this equation, he credits the early Greek philosopher Anaximander, from whose views he claims to have drawn many important ideas! (Hanson, Appendix I, p. 159)

As Hanson concludes:

"It is in these situations that the expression 'natural philosophy' is most fitting. These men are wrestling with conceptual aspects of physical problems; they are exploring patterns of thinking about matter in a way which will determine what tomorrow's experiments will be, and with what sorts of measurements and observations future laboratory workers will concern themselves. The conceptual basis of De Broglie's doctoral thesis seemed 'philosophical' to his examiners, but today $\lambda = h/mv$ is familiar enough even in undergraduate physics, a household expression in any laboratory. The unsettlement of Einstein, Bohm and De Broglie is regarded as 'merely philosophical' by most physicists today. At this stage it would be venturesome to try finally to settle this matter; nonetheless the issue is a living one in contemporary natural philosophy. Its conceptual significance will be missed by anyone who fails to see how much was at work when physicists of the past disagreed, and missed also by anyone who thinks of the history of physics as just a march of better observations and more accurate experiments. This it surely is; but rarely can a man observe what does not yet exist for him as a conceptual possibility." (p. 175)

Hanson's discussion is one example, on a most abstract plane,

of the ways of patterning one's thinking and determining or adjusting one's perspective- of conceiving reality, in short. Much of the contention in education today can be accounted for in this manner. Some see individual and national worth and success as dependent on a sure grasp of the accumulated knowledge of our civilization (the traditionalists); others see our continued existence as a viable society as dependent upon sophisticated adjustment to complex organizational structure and disrupting mobility (the moderns). Both look at the same situation and conceive different answers.

Or in management there is the division between those who think a good systems analyst and a better analog computer would solve all problems and those who insist that the human behavior problems of the informal organization are the crucial ones to solve.

All of these are, of course, exaggerated and oversimplified dichotomies. There are both more divisions within each field and

FOR THE BUSINESS EXECUTIVE

RECENT

M. L. J. Abercrombie, the anatomy of judgment (Basic)

CLASSICS IN MANAGEMENT (selections; Am. Man. Ass'n)

Robert A. Dahl, Mason Haire, and Paul F. Lazarsfeld, Social Science Research on Business product and Potential (Columbia)
Eugen Diesel, Gustav Goldbeck, and Friedrich Schildberger, from Engines to Autos (Regnery)

Richard Eells, THE MEANING OF MODERN BUSINESS (Columbia)

Dan Fenn, Jr., BUSINESS RESPONSIBIL-ITY IN ACTION (McGraw)

Herron, EXECUTIVE ACTION SIMULA-TION (Prentice) Jacobson and Reller, ADMINISTRA-TIVE RELATIONSHIPS: A CASEBOOK (Prentice)

Donald and Eleanor Laird, TECH-NIQUES OF EFFICIENT REMEMBER-ING (McGraw)

John Magee, THE GENERAL SEMANTICS OF WALL STREET (Magee)

Neuschel, management by system (McGraw)

ORGANIZING YOUR JOB IN MANAGE-MENT (Am. Man. Ass'n)

Mario Pei, the consumers' Manifesto (Crown)

Victor Perlo, USA VERSUS USSR: THE COMPETITION OF SYSTEMS (Internat'l Pub.)

Theodore V. Purcell, S.J., BLUE COL-LAR MAN: PATTERNS OF DUAL AL-LEGIANCE IN INDUSTRY (Harvard)

C. W. Ramfalk, TOP MANAGEMENT SELECTION (Humanities Pr.)

Lionel Ruby, THE ART OF MAKING SENSE (Lippincott)

Karl Schriftgiesser, business comes of age: the impact of the committee for economic development, 1942-1960 (Harper)

Smyth, Financial incentives for management (McGraw)

Starr and Miller, EXECUTIVE DECI-SIONS AND OPERATIONS RESEARCH (Prentice)

Perrin Stryker, THE MEN FROM THE BOYS (Harper)

James D. Thompson and others, COMPARATIVE STUDIES IN ADMINIS-TRATION (U. of Pitts.)

William Voris, THE MANAGEMENT OF PRODUCTION (Ronald)

Richard Ward and Lawrence A.

Hoffman (eds.), READINGS IN ECONOMIC GEOGRAPHY FROM FORTUNE
(Holt)

more impetus toward unifying the diverging views than such either-or statements imply. How to arrive at some really comprehensive picture upon which to act is the question of the moment. Within the field of anthropology, to which the following books give but the sketchiest introduction, may be found some answers and perhaps a new question that will make possible answers not now conceivable.

Anthropologists generally feel bound to justify the vast domain charted out for their discipline. In an age of specialization, to claim the whole province of mankind for oneself seems not only presumptuous but ridiculous. However, as Clyde Kluckhohn points out in his essay "Common Humanity and Diverse Cultures" in the HUMAN MEANING OF THE SOCIAL SCIENCES, edited by Daniel Lerner (Meridian, \$1.45):

"Anthropology is the study of the similarities and the differences, both biological and behavioral, among the past and present, primitive and sophisticated peoples of the world. . . . Methodologically and conceptually, anthropology has borrowed from the humanities, the natural sciences, and the social sciences. Intellectually, the discipline has only four unifying factors:

"1. A focus on man in all his variation and similarity.

"2. A consistently comparative point of view.

"3. A stubborn conviction that history, physique, environmental situation, way of life, and language are all related in discoverable patterns.

"4. A premise that the nonrational and irrational aspects of human behavior must be investigated along with the rational." (pp. 245-46)

Anthropology has also handled the problem of the objective observer in its own fashion. In contrasting, for example, his field with sociology, Kluckhohn marks this difference:

"The sociologist stresses distance, the [cultural] anthropologist an equilibrium of involvement and detachment. . . . The anthropologist deliberately uses his own feelings and reactions as one of his instruments of research. . . . No two anthropologists will ever see 'the same' culture in identical terms any more than one can step twice in the same river. At the same time, science acquires wider and deeper knowledge of cultures precisely because of the variabilities in the natures and temperaments of different observers. Richness is gained at the sacrifice only of an illusion-namely, that cultural reality in its infinite variation can ever be completely captured and recorded with perfect objectivity." (pp.

He stresses further that patterns, rather than measurements and quantification (except for anthropometry), are the organizing principles of anthropology; the complexity of anthropological data largely precludes the possibility of handling them statistically. Distinguishing significant forms and formal relationships is its usual method, the method also most suited to the needs of genetics. The basis for gathering data remains direct and preferably firsthand observation.

Although still ostracized in American public schools largely because of continued resistance to evolutionary theory, anthropology has been definitely fashionable in most serious adult circles since World War II. Applied anthropology has filled more and more needs. (We will refer to industrial anthropology in the next issue in discussing Melville Dalton's Men Who Manage.) A series of paperbacks by famous names in the field have appeared.1 One of the most popular of the hardcovers, published in 1956, is Herbert Wendt's In Search of Adam (Houghton), which maintains remarkable suspense throughout its anecdotal retelling of the bitter battles in the reconstruction of man's evolutionary history.

TA

Ur

Th

rel

me

to s

HAI

"Не

"A p

WIL

"A r

textl

DAL

"This

- Ri

busin

During the Darwin Centennial in 1959 (The Origin of Species was published in 1859), there was a rash of commemorative volumes by popularizers, biographers, and conferences of the learned. As for the recent books for the layman in the general fields of physical anthropology and genetics, it is sometimes difficult to know which were consciously planned for the occasion and which are merely indicative of a continuing public interest in the subjects. Of these, we have chosen one for review here because of the panoramic picture it gives of man's historical development, his biological nature, and the moral of mankind's common humanity. It is MANKIND IN THE MAKING: THE STORY OF HUMAN EVOLUTION (Doubleday. \$4.95) by William Howells, Harvard's distinguished physical anthropologist. (The book's predecessor was entitled Mankind So Far. A revision was necessary because, as the author says in

¹ Among the best of these paperbacks are Mirror for Man by Clyde Kluckhohn, Harvard's cultural anthropologist; Man: His First Million Years (Mentor) by Ashley Montagu of Rutgers (famous or infamous for his best-selling The Natural Superiority of Women); Patterns of Culture (Pelican) by Ruth Benedict, formerly of Columbia; Man Makes Himself (Mentor) by V. Gordon Childe, England's venerable economic determinist; Cultural Patterns and Technical Change (Mentor) edited by Margaret Mead of Columbia; Culture, Language and Personality: Selected Essays (Cardinal) by Edward Sapir, last of Yale; two by England's outstanding physical anthropologists-History of the Primates (Phoenix) by W. E. Le Gros Clark and Man the Tool-Maker (Phoenix) by Kenneth P. Oakley; Heredity, Race and Society (rev., Mentor) by L. C. Dunn and Th. Dobzhansky of Columbia; and The Primitive World and Its Transformations (Cornell) by Robert Redfield of Chicago.

BUSINESS BOOKS JUST PUBLISHED

SELLING: Its Broader Dimensions

TAYLOR W. MELOAN, University of Southern California, and JOHN M. RATHMELL, Cornell University

This book of readings presents a balanced, comprehensive examination of the selling function and its relation to the whole field of marketing. Emphasis is on personal selling and the directly related management aspects.

Macmillan Marketing Series

Early Summer

Linear Programming and the Theory of the Firm

KENNETH E. BOULDING and W. ALLEN SPIVEY, both, University of Michigan

- interprets recent developments in the theory of the firm, placing them in their historical setting to show their essential continuity with older theories.
 - clear, sound and brief exposition, providing necessary mathematics for the uninitiated.

Early Summer

MANAGERIAL ACCOUNTING: An Introduction

HAROLD BIERMAN, Jr., Cornell University

"Here is a book that has been needed for a long time." - Wages & Salary

"A practical guide for . . . those who need to understand the managerial uses of accounting and the role it plays in decision-making." — The Management Review 1959, 483 pages, \$10.00

Business Behavior, Value and Growth

WILLIAM J. BAUMOL, Princeton University

"A most challenging book . . . It deals particularly with administered prices, imperfect competition and economic growth. [Professor Baumol's] argument and evidence are so persuasive that future economics textbooks are likely to be rewritten and reoriented." — Economic Intelligence 1959, 176 pages, \$4.75

Management Principles and Practices

DALTON E. McFARLAND, Michigan State University

"This book is one of which the author can be proud, and from which a variety of individuals can profit."

- Richard W. Husband, Florida State University, in Personnel Psychology
- a realistic analysis of the managerial functions and processes involved in running all types of business organizations effectively.
 - emphasizes principles, documented by reference to practice.

1958, 612 pages, \$9.25

The Macmillan Company

60 Fifth Avenue

New York 11, N. Y.

his new book, a great deal has happened and understanding has shifted in the field since its publication. But he insists that "this is not a revised version; rather, it is a new book by a revised author." p. 347.)

Before proceeding with the Howells book, however, we want to at least mention three other books that have received considerable press notice, also because of the authority of their authors. The first, The Phenomenon of Man (Harper), is by the renowned Jesuit paleontologist, Pierre Teilhard de Chardin. Some, like the author of its preface, Julian Huxley, have praised its synthesis of evolutionary theory and modern theology as well as its vivid re-creation of Teilhard's personal experiences in fossil hunting. Others admire it as a poetic rewriting of the Book of Genesis in terms of evolution but find it too equivocal on such matters as the genetic mechanism, particularly the crucial point of the nature of mutations.2

The other two recent books on evolutionary history that should be mentioned are oriented toward man's future as seen from

² Whether Teilhard's qualifications are Lamarckian tendencies or just the anticipated finalism of a churchman cannot be determined from the reviewers' remarks. Surely he cannot reject the genetic mechanism out of hand. As to the finalist's repudiation of the randomness of mutations, the orthodox have been given some pause in the annual report of the National Science Foundation published in early 1959. It contains a revolutionary discovery that could completely change mutation theories. In an experiment with a variety of Indian corn, a University of Wisconsin geneticist unexpectedly produced a permanent mutation in one generation through only the association of a gene with its partner genes (by a cross of two different kinds of plants). This mutation could be reproduced at will.

the evolutionary point of view. Both Human Heredity (World) by Ashley Montagu and Nature and Man's Fate (Rinehart) by Garrett Hardin see contemporary Homo sapiens as catastrophically caught between nuclear warfare and overpopulation. Both see the outcome as virtually hopeless. No longer can one take the relatively comfortable Malthusian conclusion that war and overpopulation will eventually balance each other, for the genetic consequences of nuclear war would be worse than the debacle of billions of starving people overrunning a depleted earth. From all reports, parents would find the final chapter of Montagu's book terrifying. But its general tone is reputedly short of Hardin's thoroughgoing nihilism. It could be that, accustomed to the inexorability of biological laws. Hardin has been accordingly biased in his approach

to political and economic problems.

If evolutionary history itself has a moral, it is that man has shown a remarkable ability to adapt to his physical and social environment-not always with justice or mercy and seldom without suffering, but doggedly and, in the long run, with progressive success. Those who point out that each species has had its day and that perhaps this is the end of ours overlook the fact that each species has also given way to another more highly organized species. Where is our successor? (There is, of course, the possibility that this might be the real end of the whole procession—a vitiating prospect, however, that does little to aid the cause.)

This brings us round to Howells' *Mankind in the Making*. In contrast to the above authors, Howells prefers to ponder, in his

PEOPLE WILL BE TALKING ABOUT

RECENT

Ralph de Toledano, LAMENT FOR A GENERATION (foreword by Nixon; Farrar)

Friedrich Duerrenmatt, TRAPS (author of The Pledge; Knopf)

Lawrence Durrell, CLEA (author of Mountolive; Dutton)

Lawrence Ferlinghetti, HER (Beatnik novel; New Directions)

Giuseppe di Lampedusa, THE LEOP-ARD (modern Italian classic; Pantheon)

Walter Lippmann, Public Opinion (Macmillan)

Frank Moraes, INDIA TODAY (Macmillan)

Truman Nelson, THE SURVEYOR (novel on John Brown; Doubleday)

Robert Payne, THE WHITE RAJAHS OF SARAWAK (author of The Gold of Troy; Funk & Wagnall) THE SELECTED WRITINGS OF SALVATORE QUASIMODO (surprise Nobel Prize winner in poetry; Farrar)

Conrad Richter, THE WATERS OF KRONOS (Knopf)

Isaac Singer, THE MAGICIAN OF LUB-LIN (author of Gimpel the Fool; Noonday)

Adlai Stevenson, PUTTING FIRST THINGS FIRST (Random)

FORTHCOMING

George E. Allen, presidents who have known me (S. & S.)

Louis Auchincloss, THE HOUSE OF FIVE TALENTS (Houghton)

Giovanni Guareschi, COMRADE DON CAMILLO (Don Camillo in Russia; Farrar)

Alfred Kern, THE CLOWN (prizewinning French circus novel; Pantheon)

William Styron, SET THIS HOUSE ON FIRE (Random)

Rex Warner, IMPERIAL CAESAR (Caesar's last 14 years; Little, Brown)

Stuart PROG per) Robert Leac

fina

tell

uni

tur

ma

ine

a s

mo

real

how

pur

thin

spec

that

A

an a

betw

of V

and a

as B

(Tha

relati

he i

reade

"In th

has to

RECI

Danie

Charle

John V

THE

IN A

AND

(lab

Phillip (on Wash

W. Frie SOCIET Walter

Frank H

final chapter, the possibility of intelligent beings elsewhere in the universe and their probable structure, the controversy of whether man was an accident of nature or inevitable, and the probability of a second rise of homo, if "in a moment of idiot progress" we really kill ourselves off. As he says, however, this is musing and the purpose of his book is to do something toward putting man in perspective and to point the moral that his roots are long and deep.

And this he does beautifully in an account of man that is a cross between the anecdotal approach of Wendt's *In Search of Adam* and a true paleontology text such as Boule and Vallois' *Fossil Men* (Thames and Hudson, 1957). In relation to the text-like quality, he includes this note to the reader:

"In the complicated story of man one has to be precise about the animals and

the ideas being talked about, and so it is absolutely necessary to use their right names and terms. I have tried to explain each one as I came to it. Unfortunately these terms are seldom one syllable. In the hope of easing the reader's way I have put a glossary at the end, in which he may look for the meaning of terms that might have escaped him since their first introduction."

Also we want to commend the fine illustrations throughout (by the famous Latvian painter Janis Cirulis) that are both helpful and pleasing—if one's taste runs to zoological specimens and fossil skulls, of course—but helpful in any case.

It is impossible to summarize in any meaningful way the vast historical account he gives. We can say that more than half of the book is devoted to presapiens development. He treats briefly of the vertebrates, mammals, and primates in general; understandably, he lingers on the hominoids -apes and man; then he launches into the heart of his story, primates of the past and the early precursors of sapient man. The latter half of the book describes the finding of the fossils of modern man, whom Howells places in the late Second Interglacial Age (450,000-250,000 B.C.), joining the school of thought which believes that Neanderthal man was not an ancestor of modern man, but a divergent and deadend branch from a common parental stock. (There is no other way of explaining, according to this school, the fact that some reasonably established fossils of modern man have been found to antedate Neanderthal fossils by some 200,000 to 300,000 years.) His discussions and maps of the dispersals of the later races over the world, especially the early migrations of American Indians, would alone be worth the price of the book.

NATIONAL ISSUES

RECENT

N

n-

ON

ae-

Daniel Bell, THE END OF IDEOLOGY (labor ed. of Fortune; Free Pr.)

Charles L. Black, Jr., THE PEOPLE AND THE COURT (Macmillan)

John W. Caughey, THEIR MAJESTIES THE MOB: THE VIGILANTE IMPULSE IN AMERICA (U. of Chicago)

Stuart Chase, LIVE AND LET LIVE: A PROGRAM FOR AMERICANS (Harper)

Robert H. Connery and Richard H. Leach, Federal Government and METROPOLITAN AREAS (Harvard)

Phillip O. Foss, POLITICS AND GRASS (on western range lands; U. of Wash.)

W. Friedmann, LAW IN A CHANGING SOCIETY (U. of Cal.)

Walter Gellhorn, AMERICAN RIGHTS
(Macmillan)

Frank H. Knight, INTELLIGENCE AND DEMOCRATIC ACTION (Harvard)

C. Wright Mills (ed.), IMAGES OF MAN (Braziller)

James C. N. Paul and Murray L. Schwartz, FEDERAL CENSORSHIP (Free Pr.)

Leonard Reissman, CLASS IN AMERI-CAN SOCIETY (Free Pr.)

Thomas G. Roady, Jr. and William R. Andersen (eds.), PROFESSIONAL NEGLIGENCE: A SYMPOSIUM (Vanderbilt)

Everett M. Rogers, SOCIAL CHANGE IN RURAL SOCIETY (Appleton)

Milton Rokeach, THE OPEN AND CLOSED MIND (Basic)

William B. Snow (ed.), THE HIGH-WAY AND THE LANDSCAPE (Rutgers)

Morris R. Stein and others, IDENTITY AND ANXIETY (includes Margaret Mead, C. Wright Mills, Karl Jaspers, and others; Free Pr.)

Tibbits and Donahue, AGING IN TO-DAY'S SOCIETY (Prentice)

William Zelermyer, INVASION OF PRIVACY (Syracuse U.)

FORTHCOMING

Bennett M. Berger, working-class suburb (U. of Cal.)

Edmund Carpenter and Marshall McLuhan (eds.), EXPLORATIONS IN COMMUNICATION (Riesman, Léger, and others; Beacon)

Gerald Gurin, Joseph Veroff and Sheila Feld, Americans view Their Mental Health (Basic)

Alexander Heard, THE COSTS OF DE-MOCRACY (U. of N.C.)

Earl W. Lindveit, SCIENTISTS IN GOVERNMENT (Public Aff. Pr.)

EDUCATION

Robert Bowen (ed.), THE NEW PRO-FESSORS (Rinehart)

Robert J. Havighurst, Higher education in the 1960's (Ohio State)

Philip Marson, A TEACHER SPEAKS: A PROGRAM TO SAVE AMERICAN EDUCATION (McKay)

Richard S. Peters, AUTHORITY, RE-SPONSIBILITY AND EDUCATION (Taplinger) An explanation that we found most enlightening was that for preadaptation:

"'Where do "new" features, like feathers, or eggs, or eyes, come from?' For it once was a common objection to Darwinism that selection explains the survival of the fittest but not the arrival of the fittest: that selection eliminates but does not create. The answer today is clearer: as G. G. Simpson, the veteran paleontologist, has constantly stressed, selection does create. The genes and chromosomes are a rich store of possibilities and a flexible mechanism. Selection, working at many points, acts to create the most favorable combinations of existing genes, within which new, favorable mutations, even though slight in single contribution, will be cumulatively effective in a given direction of adaptation. Furthermore, many 'new' things are not new, but are developments of features which are already 'preadaptive.' This signifies organs, whether or not they were useful before, which in changed circumstances can be called on to work for a new and more important need. (Footnote: Preadaptation, an important idea to evolutionists,

is not always defined the same way. It refers, as above, to a trait or mutation which may or may not be beneficial in the existing state of adaptation, but which proves useful in a new state or environment. It does not mean something intended by nature to fit an animal for something different or new; nor does it mean, of course, that an individual animal inherits the normal adaptations of its species ready-made.)" (pp. 25-26)

Howells also furnishes a handy analogy for evolutionary history:

"How at last can we view the whole pattern of forces, principles, grades, specializations, as they are manifest in a typical evolutionary history? If you like mental diagrams, suppose you have a large, empty house of a number of stories, with stairs going up the center. Let the several floors represent the main grades of organization—the forward evolutionary steps—and the corridors and rooms stand for the paths of special adaptation and the environmental niches to which they lead.

"Suppose our first land ancestors move into the ground floor. From the hallway there takes place an adaptive

radiation throughout that floor, the occupants quite unconscious of higher floors and proud of the rooms they come to occupy. Then one family clambers up to a new floor, and a new scurry for rooms takes place. Far from the stairs, in the distant rooms (which may represent extreme redecorations like flying, swimming, or burrowing), happy recluses settle, never to see a stair again. But back at the middle certain less adventurous occupants, who have been eying the staircase all the time, go up to still another floor and give rise to another radiation, occupying a set of rooms having a plan rather similar to the floors below.

Fri

THE

IN I

GUI

ell)

five

on

of

Hov

Fall

Mar

prof

ford

onst

tion,

cal, i

discu

and

techi

ride

size

man

mist's

"The

ogy"

profe

Unive

its ger

field 1

ments

nique

conce

and t

tionar

pology

mutati

contril

the m

genetic

A sl

of pape

sium at

Americ ciation

organiz

the Un

titled, a

sium, T

CAPACIT

State, \$3

evolutio

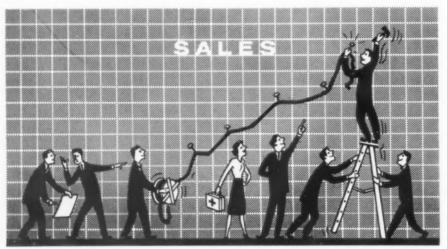
by assur

logical

"Man, of course, has got up into a little belfry all his own. It appears that his ancestors never got far from the stairs; his generalized nature shows it and the record proves it." (p. 32)

This brief recital of the bones of the book cannot convey any of the excitement it creates over man's adventure in discovering his history or the impact of this new perspective on current issues. This comes only in the reading. (Like all sciences today, of course, physical anthropology moves apace, and this book will undoubtedly need a major revision in another ten years, perhaps sooner. No one realizes this better than the author. But the basic story is here and the revisions will only reinforce and elaborate the structure.)3

Nothing can give the feel of a subject like a volume of readings, and in every field, more and more of these books abound. An especially interesting one, in two volumes, has appeared in anthropology. Only the first volume is suitable at this juncture: Morton H.



More Sales Volume? Lower Sales Cost? Higher Profit Margin?



If you are interested in better results from your industrial or automotive advertising, you need the services of a specialist in these markets.

For full information, call or write:

Lagrange & GARRISON, INC.

30 E. Georgia St., indianapolis 4 ME 6-3491 Indiana's Leading Industrial and Automotive Advertising Agency ³ For an introduction to the subject of the development of early man, Ashley Montagu's Man: His First Million Years would perhaps be less formidable than Howells' book. Montagu covers in 84 pages—also illustrated—the matter that Howells spends 331 pages on. There are, as a result, no anecdotes in Montagu and the facts are bare and largely unqualified. (The remainder of his book deals with cultural anthropology.)

Fried, editor, READINGS IN AN-THROPOLOGY, VOLUME I, READINGS IN PHYSICAL ANTHROPOLOGY, LIN-GUISTICS, AND ARCHEOLOGY (Crowell). This volume contains thirtyfive articles, of which eleven are on physical anthropology. Two of these dovetail nicely with Howells. The first is "Reason and Fallacy in the Study of Fossil Man" by W. E. Le Gros Clark, professor of anthropology at Oxford. His main concern is to demonstrate the pitfalls of reconstruction, both physical and hypothetical, in paleontology. He carefully discusses both the possibilities and limitations of such dating techniques as carbon 14 and fluoride tests. And he would emphasize the reconstruction as a human drama rather than a taxonomist's playground. The second is "The New Physical Anthropology" by Sherwood L. Washburn, professor of anthropology at the University of California. He credits genetics with transforming the field from a science of measurements and classification techniques into a new systematics concerned primarily with process and the mechanism of evolutionary change. Physical anthropology has nothing to offer on mutation, he believes, but can contribute to the knowledge of the migrations of populations, genetic drift, and selection.

A slender volume—consisting of papers presented for a symposium at the annual meeting of the American Anthropological Association in December, 1957, and organized by Dr. J. N. Spuhler of the University of Michigan—entitled, after the title of the symposium, THE EVOLUTION OF MAN'S CAPACITY FOR CULTURE (Wayne State, \$3.50) ties together somatic evolution and cultural evolution by assuming culture to be a biological adaptation. Viewed in

The Ford Foundation announces the publication of the winning theses in its first annual Doctoral Dissertation Competition in Business Administration and Related Disciplines

The winning dissertations, to be published in book form by Prentice-Hall, Inc., were completed during the academic year 1958-1959 by doctoral candidates in business administration and other fields relevant to the study of business problems.

The competition is intended to provide widespread recognition for distinguished doctoral research in business administration and the disciplines underlying this profession, and to encourage other outstanding dissertations.

The Doctoral Dissertation Competition is being conducted for a second year in 1959-1960 and may be repeated in subsequent years. Information may be obtained from The Ford Foundation, Program in Economic Development and Administration, 477 Madison Avenue, New York 22, N. Y.

Dissertations in Business Administration

Computer Models of the Shoe, Leather, Hide Sequence

KALMAN J. COHEN, Graduate School of Industrial Administration, Carnegie Institute of Technology. Dr. Cohen explores the suitability of computer simulation as a tool in the study of business behavior.

Budget and Control and Cost Behavior

ANDREW C. STEDRY, Graduate School of Industrial Administration, Carnegie Institute of Technology. The problems of budget control are considered in terms of economics, psychology, organization theory, mathematics, and accounting.

Dissertations in Related Disciplines

The Structure of a Retail Market and the Market Behavior of Retail Units

BOB R. HOLDREN, Department of Economics, Yale University. Dr. Holdren observes the market behavior and decision making in a group of supermarkets in order to develop a more adequate theory of retail competition.

Polya-Type Distributions in Renewal Theory, with an Application to an Inventory Problem

FRANK PROSCHAN, Department of Statistics, Stanford University. This thesis offers a mathematical solution for determining the number of spare parts required for a complicated system, placed in service for a given length of time.

Some Personality Determinants of the Effects of Participation

VICTOR H. VROOM, Department of Psychology, University of Michigan. Dr. Vroom studies supervisors in a large company to determine how participation in decision making affects the motivation of persons with different personality characteristics.

Four of the theses are being published in May, 1960, with Dr. Holdren's to follow in the summer. In order to achieve maximum distribution of the dissertations to students and teachers, the Ford Foundation has subsidized their publication. Prentice-Hall has contributed its publishing services. The five volumes are being offered to teachers, students, and libraries of educational institutions below cost, at \$1 each, postpaid. In ordering copies at this educational price, please be sure to mention your academic affiliation and to enclose payment with your order. (The books will be available to the general public through bookstores at \$4.50 each). Address your order to:

Box 903 Dept. BH

Prentice-Hall, Inc.

Englewood Cliffs, N. J.

SCIENCE AND THE

RECENT

James Altieri, THE SPEARHEADERS (story of Darby's Rangers; Bobbs-Merrill)

Isaac Asimov, the Wellsprings of Life (Abelard)

ENERGY AND MAN (symposium with Teller, Mason, Nevins, Dunlop, and Hoover, Jr.; Appleton)

Lucienne Felix, Modern Aspect of Mathematics (Basic Books)

John M. Fowler (ed.), FALLOUT: A PREVIEW OF NUCLEAR WAR (Basic Books)

Gamow and Cleveland, PHYSICS: FOUNDATIONS AND FRONTIERS (Prentice)

Lt. Col. Kenneth Gantz (ed.), NUCLEAR PROPULSION IN THE AERO-SPACE (Duell)

Charles C. Gillispie, THE EDGE OF OBJECTIVITY: AN ESSAY IN THE HIS-TORY OF SCIENTIFIC IDEAS (Princeton)

John H. Heller, of MICE, MEN AND MOLECULES (Scribner)

E. Kingston-McCloughry, Defense POLICY AND STRATEGY (Praeger)

Viscount Montgomery, AN AP-PROACH TO SANITY: A STUDY OF EAST-WEST RELATIONS (speeches and articles; World)

Bertrand Russell, FUTURE OF SCIENCE (Philosophical Lib.)

Anthony E. Sokol, SEAPOWER IN THE NUCLEAR AGE (Public Aff. Pr.)

L. O. Thurstone, NATURE OF INTELLI-GENCE (Littlefield, Adams)

FORTHCOMING

Richard D. Challener and Gordon B. Turner (eds.), NATIONAL SECURITY IN THE NUCLEAR AGE (Praeger)

Myron B. Gubitz, to the edge of space: the story of rocketship X-15 (Messner)

James S. Hanrahan and David Bushnell, SPACE BIOLOGY (Basic)

Sidney Hook (ed.), DIMENSIONS OF MIND (includes Wiener, Skinner, Kohlov, and others; N.Y.U.) this way, says Spuhler in his introductory essay "Somatic Paths to Culture." there is a gap between cultural and noncultural behavior. He sets the purpose of the symposium as the investigation of the crossover area from nonsymbolic to symbolic behavior. He simplifies the paleontological record with a division into four genera: (1) Miocene terrestrial man-like apes like Proconsul; (2) early Pleistocene Australopithecus with bipedal locomotion (skipping the blank Pliocene stage); (3) early to middle Pleistocene Pithecanthropus, like homo from the neck down and midway between Australopithecus and homo in brain volume; and (4) by middle Pleistocene, genus homo. He next lists what he considers to be seven biological preconditions for the beginning of culture or symbolic behavior: accommodative vision, bipedal locomotion, manipulation, carnivorous-omnivorous diet, cortical control of sexual behavior, vocal communication, and expansion of the cerebral cortex. He then discusses these seven preconditions in terms of their gradual development through the four genera. This essay is actually a nice synthesis of some of the most interesting points in man's evolution. The vocabulary, of course, assumes considerable familiarity with the subject but is far from formidable.

The other six essays and Dr. Leslie White's summary review are rewarding in varying degree, largely, and quite naturally, depending on the preferences and previous background of the reader. The two that seem most related to the theme are "Speculations on the Interrelations of the History of Tools and Biological Evolution" by S. L. Washburn and "The Social Life of Monkeys,

Apes and Primitive Man" by Marshall D. Sahlins. Washburn summarizes his contribution in this way:

"In summary, it was bipedalism which started man on his separate evolutionary career. But tool use was clearly as early. Biological changes in the hand, brain, and face follow the use of tools, and are due to the new selection pressures which tools created. Tools changed the whole pattern of life bringing in hunting, cooperation, and the necessity for communication and language. Memory, foresight and originality were favored as never before. and the complex social system made possible by tools could only be realized by domesticated individuals. In a very real sense, tools created Homo sapiens."

fi p za

rec

on

bet

mo

zati

SEC

Resi

over

used

cont

limit

By W

sents

replic

stage

design

from

sampl

June.

Sahlins concludes that the transition from subhuman primate society to human primate rudimentary culture showed a few very general features forming a generic continuity between the two (territoriality, utilization of the powerful social functions of primate sexuality in human social organizations, and allocation of social functions on the lines of sex and age). Also, the social advances within the primate order, upon which cultural society directly elaborated, include the exclusive mate group, the development of reciprocal social services in grooming, and the softening of dominance relations among higher primates. makes it very clear, however, that no specific trait of cultural society is, in both form and function, a direct survival of some specific trait of primate social behavior. He considers the "great triumphs of early culture" to be: (1) division of labor by sex and establishment of the family on this basis; (2) invention of kinship; (3) in cest prohibition and its extension through exogamy (marriage outside the kin group), thus extending kinship; (4) overcoming of

122



CHANGING PATTERNS OF INDUSTRIAL CONFLICT

By ARTHUR M. ROSS and PAUL HARTMAN, both at Univ. of California. Analyzes the dramatic decline in the general level of strikes and walkouts in Europe and North America. Explains this by an account of changes in employer policies, government programs, and union philosophy. 1960. 220 pages. \$6.50

MEN WHO MANAGE

By MELVILLE DALTION, *Univ.* of California. Using confidential case material, this study of constructive compromise and its mechanisms views a variety of organizations in industry and commerce, with sidelights on others in welfare, recreation and research. The organization is seen as a shifting set of disruptive yet contained phases of action—the "power struggle." 1959. 318 pages. \$6.75

MODERN ORGANIZATION THEORY

Edited by MASON HAIRE, Univ. of California. The record of a symposium of the Foundation for Research on Human Behavior. Topics range from the conflicts between personalities and the organization, to biological models of social organization and the costs of decentralization. 1959. 324 pages. \$7.75

THE MOTIVATION TO WORK

e

j-

le

e-

ial

he

118

He

nat

ety

1, a

eific

ior.

phs

livi-

lish-

asis;

asion

out

tendng of SECOND EDITION, By FREDERICK HERZBERG, Western Reserve Univ., BERNARD MAUSNER, Univ. of Pittsburgh, and BARBARA SNYDERMAN, Research Asst. Provides an over-all, practical theory of job motivation, which can be used to explain most aspects of industrial relations, in contrast to writings presenting theories and data on limited areas. 1959. 157 pages. \$4.50

SAMPLE DESIGNS IN BUSINESS RESEARCH

By W. EDWARDS DEMING, New York University. Presents theory and practice of sample design by use of replication, which eliminates complex formulas of multistage design, yet retains the efficiency of any possible design. Gives several other new concepts, with examples from accounting, sampling human populations, and samples of records and of physical materials. Ready in June. Approx. 584 pages. Prob. \$12.00

WORK IMPROVEMENT

By GUY C. CLOSE, Aluminum Co. of America. Presents principles of management applied to work improvement methods, then shows in detail how they can be applied to actual situations, with examples drawn from a wide variety of fields. Stress is on methods of supervision that get practical results, by presenting techniques that have been shown to work. 1960. 388 pages. \$7.75

10,000 CAREERS

By R. L. THORNDIKE and E. P. HAGEN, Columbia Univ. By far the most thorough follow-up study of aptitude tests ever made. Gives results of research in which 10,000 men took a battery of tests, then were queried 13 years later to see what careers they had entered and how they had progressed. 1959. 346 pages. \$8.50

WORK AND AUTHORITY IN INDUSTRY

Ideologies of Management in the Course of Industrialization. By REINHARD BENDIX, Univ. of California. Gives a clear perspective of employer-worker relations, set in a social science framework. Covers origins, evolution and construction of major industrial societies; traces their managerial ideologies; then identifies historical sources and shows their social consequences. 1956. 466 pages. \$7.50

PROGRAMMING BUSINESS COMPUTERS

By D. D. McCracken, Consultant, Harold Weiss and Tsai-Hwa Lee, both of General Electric. Directed to the man who lacks an extensive background in mathematics but is nevertheless involved in day-to-day application of computers to business data processing problems. 1959. 510 pages. \$10.25

INTERINDUSTRY ECONOMICS

By H. B. CHENERY, Stanford Univ. and P. C. CLARK, Rand Corp. Shows how input-output and linear programming can be combined to analyze economic problems. Presents an original technique to apply to long-term structural analysis. 1959. 345 pages. \$7.95

OPERATIONS RESEARCH: Methods and Problems

By M. SASIENI, Case Inst. of Technology, A. YASPAN, Standard Oil Co., and L. FRIEDMAN, M&M's Candies. Helps develop skill in formulating, solving simple mathematical models. Shows kinds of data to be collected for solving OR problems. 1959. 316 pages. \$10.25

Send now for on-approval copies

JOHN WILEY & SONS, Inc.

440 PARK AVE. SOUTH, NEW YORK 16, N. Y.

primitive competition over food in favor of sharing and cooperation; and (5) abolition of other primate conflicts leading to the establishment of dominance hierarchies.

"THE ULTIMATE task of the anthropological enterprise is to explain the uniformities and diversities in the natural condition of mankind," says Walter Goldschmidt, professor of anthropology and sociology at UCLA, in his new book, MAN'S WAY: A PREFACE TO THE UNDERSTANDING OF HUMAN SOCIETY (World, \$4.00). This quotation begins Chapter II, "The Dimensions of Anthropological Theory," which we will summarize in some detail because of its general usefulness to the whole discussion of cultural anthropology. It is not a history of anthropological theory, but rather an outline of the major orientations that have dominated anthropological thought for the past century.

At the outset he excludes three positions from his discussions for various reasons: the theological, the physiological (the view that man's variant cultural behaviors are a product of variant physical heredities), and environmental determinism (physical environment determines culture). He describes in turn the old classical evolutionary theory of cultural development, the reaction to it in the comparatively relativistic school of historical explanations, the sociological orientation, the later swing to psychological explanations, and the recent eclectic school that has been trying to synthesize the previous variant points of view.

Classic cultural evolution was the outgrowth of biological and geological evolutionary explanations. It viewed the growth of human culture as a steady progress with an inner dynamic toward man, the masterpiece of nature, and Western civilization, the masterpiece of social evolution. Those of us who left school some years ago can remember the textbooks that reflected this linear development through the stages of savagery (the nomadic hunters), barbarism (early agriculture and herding), and civilization (based on writing, metal use, and statecraft) - or the inevitable succession of the Ages of Stone, Bronze, and Iron. It held analogous theories of the development of monogamous marriages, kinship patterns, and religion.

Franz Boas, basing his reaction against this nineteenth century theoretical neatness and ethnocentrism on his own firsthand experience with foreign and primitive cultures, created among his students a new tendency to concentrate on the particular and assume that behavior was the product of a singular history for each culture and not the result of any general scheme.

car

tra

tra

COI

dis

COL

am

He

ed

dis

sch

dev

al a

act

der

-w

me

sch

reg

ing

Cho

Arn

F

Ca

Geo

M

E

Bert

Ross

IN

C. J.

TE

CC

ON

(H

Geon

Rayn

C.A.

CO

(H

CO

Harr

ME

LABO

NA

The new emphasis placed on empirical data increased the amount of fieldwork. For explanations, it turned to history. If each culture was the chance result of its own unique history, the anthropologist must discover, first, what culture was brought to the area by the early migrations; second, the later influences through the people's own successive inventions; and third, their borrowings from neighbors. By

FOR THE BUSINESS SPECIALIST

RECENT

Edmund C. Arnold, PROFITABLE NEWSPAPER ADVERTISING (Harper)

James W. Bell and Walter E. Spahr, A PROPER MONETARY AND BANKING SYSTEM FOR THE UNITED STATES (Ronald)

Monroe Berkowitz, workmen's compensation (Rutgers)

Boris I. Bittker, Federal Income TAXATION OF CORPORATIONS AND SHAREHOLDERS (Federal Tax Pr.)

Shirley Boskey, PROBLEMS AND PRAC-TICES OF DEVELOPMENT BANKS (Johns Hopkins)

J. Botha, STUDY IN THE THEORY OF MONETARY EQUILIBRIUM (Lounz)

Kenneth Boulding and Allen Spivey, LINEAR PROGRAMMING AND THE THEORY OF THE FIRM (Macmillan)

William G. Bowen, WAGE-PRICE IS-SUE: A THEORETICAL ANALYSIS (Princeton)

Lee H. Bristol, Jr., DEVELOPING THE CORPORATE IMAGE (Scribner)

Marion R. Broer, THE EFFICIENCY OF HUMAN MOVEMENT (Saunders)

Philip W. Burton, THE PROFITABLE SCIENCE OF MAKING MEDIA WORK (Printers' Ink Books)

Richard E. Caves, TRADE AND ECO-NOMIC STRUCTURE: MODELS AND METHODS (Harvard)

Council on Human Relations, RE-SOURCE HANDBOOK IN HUMAN RELA-TIONS (new ed.; The Arcade)

Burton Crane, THE PRACTICAL ECONOMIST (S. & S.)

W. Edwards Deming, SAMPLE DE-SIGNS IN BUSINESS RESEARCH (Wiley)

Charles J. Dirksen and Arthur Kroeger, Advertising principles and PROBLEMS (Irwin)

Ralph E. Freeman (ed.), POSTWAR ECONOMIC TRENDS (Harper)

Milton Friedman, agenda for monetary reform (Fordham)

Cornelius W. Gillam, PRODUCTS LIABILITY IN THE AUTOMOBILE INDUSTRY (U. of Minn.)

Philip J. Goldberg, LAW OF ESTATE PLANNING (Oceana)

Edward M. Gottschall and Arthur Hawkins (eds.), ADVERTISING DI-RECTIONS (Art Directions) careful study of isolated culture traits and the diffusion of those traits over the world—buttressed by the findings of archeology and comparative folklore—the early dispersals of peoples could be conjectured. (A best-selling example of this kind of study was Heyerdahl's Kon-tiki, an attempted reconstruction of an early dispersal route of the Incas.)

This bias of the historical school toward explanation of a development basically nonrational and derived from many interacting influences—toward accident rather than design, in short—was unpalatable to the fundamentally rationalist sociological school. As functionalists, they regard human behavior as deriving from the requirements of

social life rather than from evolution, history, or psychology. For them the institutions of social action and the patterns of behavior function to preserve the integrity of the body politic. Stemming from Comte and Durkheim, this orientation found its two leading proponents in Radcliffe-Brown and Malinowski, both of England. The latter, however, accented the function less than the integration of cultures. As he demonstrated in his studies of the Trobriand Islanders, the various aspects of culture are so intertwined that it is foolish to try to treat them separately; but each culture transmutes these traits to meet its own requirements in satisfying basic life needs.

Because of Malinowski's influ-

ence, Ruth Benedict is included with those of a sociological orientation. Her work in culture patterns would seem to fit better either with Boas and the cultural relativists (sometimes called holists) or with the psychological school (as Goldschmidt himself suggests in qualification).

Even as anthropology as a whole is something of an intellectual pet today, so within the field one orientation-the psychological-has enjoyed especial popularity in recent years. The culture personality theory still has both fanatical adherents and fanatical detractors (Leslie White, himself of the sociological persuasion, calls it "a reactionary debasement of science"). Under Freudian influence, some anthropologists felt that the overwhelming emphasis in the field on group activity and customary behavior and the general ignoring of the individual created a distortion. One of the first anthropologists to become interested in the possible applications of psychology to anthropology, Edward Sapir, maintained that a dynamic study of the genesis and development of cultural patterns could not realistically be disconnected from the organizations of ideas and feelings that constitute the individual. While Sapir was concerned mainly with the role of the informant in anthropological research and the informant's typicality of his culture (an assumption too lightly made, he believed), increasing weight was later given by others to the training of infants and children as a determinant of culture patterns. This became the main concern of Margaret Mead (Coming of Age in Samoa, for example).

The conviction that the basic patterns of individual behavior as established in the child-rearing

Charles M. Haar, Federal Credit and Private Housing (McGraw)

A. H. Hanson, Public Enterprise AND ECONOMIC DEVELOPMENT (Humanities Pr.)

Arnold Harberger (ed.), THE DEMAND FOR DURABLE GOODS (U. of Chicago)

George Harwell, TECHNICAL COM-MUNICATION (Macmillan)

Bert F. Hoselitz (ed.), THEORIES OF ECONOMIC GROWTH (Free Pr.)

Rossall J. Johnson, Personnel and Industrial relations (Irwin)

C. Jonsson, QUESTIONNAIRES AND IN-TERVIEWS: EXPERIMENTAL STUDIES CONCERNING CONCURRENT VALIDITY ON WELL-MOTIVATED SUBJECTS (Humanities Pr.)

George Katona, THE POWERFUL CON-SUMER (McGraw)

LR

N-

is-

TE

111

Raymond P. Kent, CORPORATE FI-NANCIAL MANAGEMENT (Irwin)

C. A. Kirkpatrick, Advertising: MASS COMMUNICATION IN MARKETING (Houghton)

LABOR TURNOVER: CALCULATION AND COST (Am. Man. Ass'n)

Harry W. McMahan, TV TAPE COM-MERCIALS (Hastings) David D. Martin, MERGERS AND THE CLAYTON ACT (U. of Cal.)

Taylor Meloan and John Rathmell, SELLING: ITS BROADER DIMENSIONS (Macmillan)

Emanual Parzen, Modern Probabil-ITY THEORY AND ITS APPLICATIONS (Wiley)

Henry Pelling, AMERICAN LABOR (U. of Chicago)

Ripnen, OFFICE BUILDING AND OFFICE LAYOUT PLANNING (McGraw)

Sidney M. Robbins and Nestor E. Terleckyj, MONEY METROPOLIS, (N. Y. Met. Study; Harvard)

W. E. G. Salter, PRODUCTIVITY AND TECHNICAL CHANGE (Cambridge)

David D. Seltz, sales contests and incentive programs (Prentice)

Ezra and B. Solomon and G. Zarko, METROPOLITAN CHICAGO: AN ECO-NOMIC ANALYSIS (Free Pr.)

Stephenson, HANDBOOK OF PUBLIC RELATIONS (McGraw)

J. Thompson and S. J. Shaw, sales-Manship (Holt)

Trescott, money, banking and economic welfare (McGraw)

J. A. Tuska and C. C. McFadden, ACCOUNTING AND TAX ASPECTS OF PATENTS AND RESEARCH (Van Nostrand)

INTERNATIONAL

RECENT

Leslie B. Bain, THE RELUCTANT SAT-ELLITES (Macmillan)

Bauer and others, How the soviet system works (Knopf)

Cecil V. Crabb, Jr., AMERICAN FOR-EIGN POLICY IN THE NUCLEAR AGE (Row, Peterson)

Linwood P. Gould, THE PRICE OF SURVIVAL (Public Aff. Pr.)

Eugene Hinterhoff, DISENGAGEMENT (Praeger)

George Liska, the New Statecraft: FOREIGN AID IN AMERICAN FOR-EIGN POLICY (U. of Chicago)

Philip E. Mosely, KREMLIN AND WORLD POLITICS (Knopf)

Joseph Nogee, DISARMAMENT NEGO-TIATIONS IN 1960 (Taplinger)

Peter Ritner, THE DEATH OF AFRICA (former feature ed., Sat. Rev.; Macmillan)

Rockefeller Bros. Fund, THE MID-CENTURY CHALLENGE TO U.S. FOR-EIGN POLICY (Doubleday)

M. Wassiljew and S. Guschtschew, REPORT FROM THE TWENTY-FIRST CENTURY (Soviet predictions; Public Aff. Pr.)

FORTHCOMING

Abraham Brumberg (ed.), COMMUNISM AFTER STALIN (Praeger)

Tse-tsung Chow, the MAY FOURTH MOVEMENT: INTELLECTUAL REVO-LUTION IN MODERN CHINA (Harvard)

Gunnar Myrdal, BEYOND THE WEL-FARE STATE (Yale)

Joseph Novak, THE FUTURE IS OURS, COMRADE: CONVERSATIONS WITH THE RUSSIANS (Doubleday)

FOR THE ELECTIONS

W. Burlie Brown, PEOPLE'S CHOICE: THE PRESIDENTIAL IMAGE IN THE CAMPAIGN BIOGRAPHY (La. State) James M. Cannon (ed.), POLITICS U.S.A. (Doubleday)

Walter Johnson, 1600 PENNSYLVA-NIA AVENUE (Little)

Malcolm Moos and Stephen Hess, HATS IN THE RING (Random)

Paul P. Van Riper, HANDBOOK OF PRACTICAL POLITICS (Row, Peterson) process were reflected in (or, some asked, were reflections of?) the patterns of social behavior grew into a theory of a basic personality discoverable in each culture. The major work of Ralph Linton (The Tree of Culture), in collaboration with a psychoanalyst, Abram Kardiner, lay in this direction. A slight departure from this is the interest in what is called social character. The roles of society and the individual are reversed: Here society or organization forces the character-or behavior patterns-on the individual. Most familiar in this trend are Riesman's The Lonely Crowd, Whyte's The Organization Man, and much of the work of Chris Argyris.

After detailing these various orientations within cultural anthropology, Goldschmidt wisely remarks that it is characteristic of theorists that, in order to establish the validity of their own positions, they feel obliged to demolish all others. To an outsider it is obvious that no one viewpoint is all wrong or all right, and that they can all be right at the same time. As Goldschmidt says, "there is insight and understanding in each, and none wholly negates the other." (p. 55) Recent theoretical work in the field, moreover, has come to recognize this necessity to triangulate on the subject matter. The work of Julian Steward at Illinois' study project in cross-cultural regularities, of George Murdock and Yale's Human Relations Area Files, and Clyde Kluckhohn with the interdisciplinary department of Social Relations at Harvard all proceed with the eclectic attitude. As for others,

"The predilection toward one or another [orientation] will depend upon the particular aspect of the human scene that the scholar chooses to elucidate, upon whatever is congenial to his intellectual predispositions. Those who are most interested in the details of form will undoubtedly seek historical explanations; those interested in function, the sociological; those interested in meaning, the psychological. Yet each aspect is equally necessary for understanding the total phenomenon.

the

SOC

gra

one

oth

cal

pop

sed

goo

div

tion

The

cou

mal

bes

to t

rati

of t

of e

mat

tive

soci

spor

tial

Mor

"C

creat

has (

cours

SUCCE

of ea

make

vance

contr

rathe

comn

In

sary

chan

take

inter

stitut

by co

prese

at ins

organ

prises

geria

as the

essarv

units.

end f

muni

ture (

"But the point should be carried further. It is not only that each orientation should be tolerant of the other, that those who seek psychological explanation should give the sociologists their due. It is, rather, that each kind of explanation *requires* the others; that, say, in order to understand a phenomenon sociologically requires a proper psychological orientation, and so on." (p. 60)

The two central themes of the book (demonstrating the author's admitted sociological predilection) are (1) that the formulation and preservation of society require certain features called "social imperatives," which may and have been met in a variety of ways, and (2) that despite the variations, a general pattern appears—the evolutionary development of man's practical knowledge, or, in other words, a gradually increasing mastery over man's material requirements.

These principles or components of all social systems (social imperatives) are the formation of groups, the adherence to specialized values and their symbolic representations, the recognition of particular statuses and the appropriate roles for each, the allocation that places the control over certain persons in the hands of others (authority), and the acceptance of general principles that afford a systematic matrix for these several kinds of action and attitudes (ideology).

The fundamental feature in evolution as Goldschmidt interprets it is technological development, either fortuitous or calculated, which is progressive and cumulative. Institutions are mechanisms of social interaction that serve the continued life of

126

the society; and all parts of the social system must form an integrated whole so that changes in one part require adjustments in others. As a result of technological advances, societies grow in population, become increasingly sedentary, increase the total goods available, separate and subdivide economic and social functions, and increase social leisure. The patterns of change differ, of course, and some societies never make the changes. Despite the best efforts to adjust the society to this development by internal rational means, "the brute fact of the matter is that the policing of evolutionary development ultimately rests in the external selective process." (p. 128) The society rallies its forces in response to an immediate or potential threat of other societies. Moreover.

"Conservatism in culture tends to create a principle of continuity which has one or both of two effects on the course of social evolution: to stamp successive institutions with the patterns of earlier forms of behavior, and to make it more likely for cultural advances to take place through successive contributions of separate societies, rather than as the product of a single community." (p. 138)

In order to maintain the necessary minimal kind of harmony, changes in social systems will take place so as to increase the internal consistency of their institutions, where not hampered by conservative tendencies. Our present world is racked by efforts at institutional congruency. The organization of large-scale enterprises, in which fiscal and managerial ties replace kin and space as the bases for unity, make necessary large social units. These units, organized for a common end from a certain sense of community and with a formal structure of authority, are, however,

r-

d

of

without ideological supports, tradition, or reinforcement through direct contact. It is here that he mentions the suggestion of Elton Mayo that corporate loyalty replace older ties. But, he adds, "what ideological supports ultimately will satisfy the emerging social order is far from clear." (p. 142) He later cautions that "an ideology must do more than justify an existing order; it must provide proper motivations for the people as a whole." (p. 180)

It is also his belief that we have only just begun to see the age of the specialist, that "status based upon property may well decline," and that "preferred types of activity may come to dominate the value system-furthered by the fact that control of knowledge rather than of resources will be crucial to the economy." (p. 217) This prospect would certainly lend pertinence to the argument over the relative merits of Soviet as against U.S. education. And how to make education and ideology congruent with technological development and its attendant institutions? Goldschmidt's final say

"American institutions are being forced to change to meet new conditions. The scholars and the moralists may rationalize the new patterns as well as provide the impetus for their development, but the institutions must change to meet the exigencies to which they are subject or the society will not long endure. It is the recognition of these needs and the appropriate action to implement them which establishes the reality of 'farsighted leadership'—and that is a judgment which can be rendered only by the historian." (p. 236)

The principal fact of which anthropology keeps reminding us is that, although our problems seem new and unprecedented, there is aid and comfort in seeing them in new perspectives and configurations. And our morale can be sustained further by knowing how mankind has again and

INTERNATIONAL BUSINESS

RECENT

Almond and Coleman, POLITICS OF THE UNDERDEVELOPED AREAS (Princeton)

Gerta Blau, INTERNATIONAL COM-MODITY AGREEMENTS (Taplinger)

Harlan Cleveland, THE OVERSEAS AMERICAN (McGraw)

Jean F. Deniau, THE COMMON MAR-KET (Praeger)

F. Eversheim, THE EFFECTS OF SHIP-PING SUBSIDATION (LOUNZ)

Herman Finer, MAJOR GOVERNMENTS OF MODERN EUROPE (Row, Peterson)

Sania Hamady, TEMPERAMENT AND CHARACTER OF THE ARABS (Twayne)

J. D. Harbron, ships of the St. LAWRENCE SEAWAY (John de Graff) John Hatch, Africa Today—and To-Morrow (Praeger)

Rita E. and Gustave M. Hauser, GUIDE TO DOING BUSINESS IN THE EUROPEAN COMMON MARKET: V. 1, FRANCE AND BELGIUM (Oceana)

Nurul Islam, foreign capital and economic development in Japan, india, and canada (Tuttle)

Hugh B. Killough, INTERNATIONAL ECONOMICS (Van Nostrand)

Hans Kohn, THE MIND OF GERMANY (Scribner)

Walter H. Mallory (ed.), POLITICAL HANDBOOK OF THE WORLD, 1960 (Harper)

ORGANIZING FOR INTERNATIONAL OPERATIONS (Am. Man. Ass'n)

W. W. Rostow, THE UNITED STATES IN THE WORLD ARENA (Harper)

Sompong Sucharitkul, State immunities and trading activities in international law (Praeger)

FORTHCOMING

 $D.\ W.\ Brogan$, america in the modern world (Rutgers)

Robert Triffin, convertibility, gold, and the dollar (Yale)

Keith Wheelock, NASSER'S NEW EGYPT (Praeger)

again met the most formidable challenges of both physical and social environments.

Through their comparative and historical studies, anthropologists have learned well the importance of appreciating varying ways of conceiving reality. Language itself-as Sapir and Whorf have noted-is not simply a device for reporting experience or ideas, but, more significantly, a way of defining that experience or formulating the idea. As explained by Harry Hoijer in "The Sapir-Whorf Hypothesis" (Readings in Anthropology, Volume I), different language users, because of the differences both in grammatical structure and semantics, will arrive at somewhat different views of the world. This does not mean that no communication channels can be opened between them; it does mean that other orientations can offer solutions not covered by the dichotomy of either/or. Which thought leads us back to Hanson's statement in *Patterns of Discovery* that "rarely can a man observe what does not yet exist for him as a conceptual possibility."

(Note: We will continue with the anthropological outlook in the next issue, dealing in particular with the final volume of Yale's Yankee City Series, The Living and the Dead: A Study of the Symbolic Life of Americans by anthropologist W. Lloyd Warner, and Men Who Manage: Fusions of Feeling and Theory in Administration by Melville Dalton of UCLA's Department of Anthropology and Sociology.)

ALSO AVAILABLE ON SUBJECT

Among the anthropology books on the publishers' spring lists were also these notable titles: Cyril Bibby, T. H. Hurley: Scientist, Educator and Humanist (biog.; Horizon); Frederica de Laguna (ed.), Selected Papers from the American Anthropologist (Row, Peterson): Louis De Wohl, Adam, Eve, and the Ape (Regnery); Evolution and Christian Thought Today (symposium; Eerdmans); H. Bentley Glass, Science and Liberal Education (La. State); Bronislaw Malinowski, Freedom and Civilization (Indiana U. Pr.); Marvin Kaufmann Opler (ed.), Culture and Mental Health: Cross - Cultural Studies (Macmillan); Paul Radin, The World of Primitive Man (Grove); Bernhard Rensch, Evolution Above the Species (Columbia); Marshall D. Sahlins and Elman R. Service (eds.), Evolution and Culture (U. of Mich.); I. Schapera, Government and Politics in Tribal Societies (Humanities Pr.); H. P. G. Seckel, Bird-Headed Dwarfs: Studies in Developmental Anthropology (Thomas); Arnold Van Gennep, The Rites of Passage (U. of Chicago); Stith Thompson, The Folktale (Holt).

BOOKS RECEIVED

Bell, James Washington, and Spahr, Walter Earl. A Proper Monetary and Banking System for the United States. The Ronald Press Company, New York, 1960. \$6.00.

Bond, Silas W. (comp.). Error Guide. Greenwich Book Publishers, New York, 1960. \$2.00.

Bowen, William G. The Wage-Price Issue: A Theoretical Analysis. Princeton University Press, Princeton, N. J., 1960. \$8.50.

Danielson, Lee E. Characteristics of Engineers and Scientists. Report No. 11, Bureau of Industrial Relations, The University of Michigan, Ann Arbor, Michigan, 1960. \$4.00.

Crew, Frederick J. Wealth and the Common Man. Philosophical Library, New York, 1959. \$3.75.

Gurley, John G., and Shaw, Edward S. Money in a Theory of Finance.

The Brookings Institution, Washington, 1960. \$5.00.

Henderson, Ernest. The World of "Mr. Sheraton." David McKay Company, Inc., New York, 1960. \$4.50.

Johnson, Arnold W., C.P.A. Advanced Accounting. Rinehart & Company, New York, 1960. \$8.00.

Mann, Floyd C., and Hoffman, L. Richard. Automation and the Worker. Henry Holt and Company, New York, 1960. \$4.50.

Marvin, H. M., M.D. Your Heart: A Handbook for Laymen. Doubleday & Company, Inc., Garden City, N. Y., 1960. \$4.50.

Michelon, L. C. *Basic Economics*. The World Publishing Company, Cleveland, Ohio, 1960. \$3.75.

Milward, G. E. (ed.). Organization & Methods: A Service to Management. St. Martin's Press, NewYork, 1960. \$7.50.

Republic of Korea, Ministry of Re-

construction. Korea's Continuing Development. Economic Planning Bureau, Republic of Korea, 1959.

Ulmer, Melville J. Capital in Transportation, Communications, and Public Utilities. Princeton University Press, Princeton, N. J., 1960. \$12.00.

U.S. Department of Commerce, Business and Defense Services Administration. Alaska: Its Economy and Market Potential. U.S. Gov't Printing Office, Washington, 1959. \$.70.

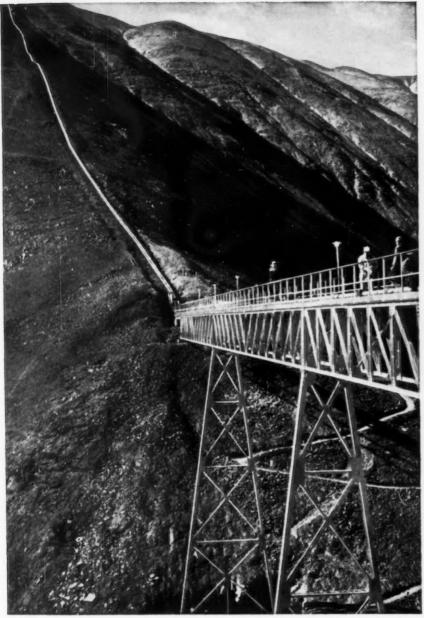
Vaccara, Beatrice N. Employment and Output in Protected Manufacturing Industries. The Brookings Institution, Washington, 1960. \$2.00.

Wasserman, Paul. Sources of Commodity Prices. Special Libraries Association, 1960. \$5.00.

Wheeler, Beth. How to Help Your Husband Relax. Doubleday & Company, New York, 1960. \$3.75. Three to richard nolo risin stan indu with in p copp

at A trato down

Th



MORE COPPER for Industry's Growing Needs Pouring through Anaconda's pipeline down the Chilean Andes

Throughout the world, demand for copper continues to rise. The cause for this increasing demand is not hard to find: The revolution in electronics, technological progress in many industrial fields, a rapidly rising population and steadily improving living standards have been chiefly responsible. The copper industry stands ready to meet this growing demand with an ever-increasing productive capacity, thanks in part to Anaconda's development of important copper deposits in Chile.

Through the unique pipeline system shown above at Anaconda's new El Salvador mine and concentrator, the copper concentrate in slurry form flows down the western slopes of the Chilean Andes for 14 miles to the Company's railroad loading point at Llanta. There it is dewatered before being hauled to the Potrerillos smelter—the end result of three years of research, development, construction, and a 110-million-dollar investment.

Despite all of the copper Anaconda has produced in the past, the Company's ore reserves today are substantially greater than ever before. In the future, Anaconda may be counted on to continue its mineral exploration—to continue developing, in its research laboratories, new applications for copper, brass and bronze—to continue meeting the growing needs of world industry for more and better products in the entire nonferrous metal field.

B0189 A

ANACONDA

SUBSIDIARIES OF ANACONDA MANUFACTURE: COPPER AND ALUMINUM ELECTRICAL WIRES AND CABLES; ALUMINUM FOIL, SHEET, ROD AND BARS, STRUCTURALS, TUBING AND EXTRUDED SHAPES: COPPER, BRASS AND BRONZE SHEET, PLATE, TUBE, PIPE, ROD, FORGINGS AND EXTRUSIONS; FLEXIBLE METAL HOSE AND TUBING.



uthought of sound the

SCHOOL OF BUSINESS
BUREAU OF
BUSINESS RESEARCH
INDIANA UNIVERSITY